



## **Development of Criteria for Evaluating Urban River Settings for Tourism – Recreation Use**

C.A. Gunn  
J.W. Hanna  
A.J. Parenzin  
F.M. Blumberg

---

**Texas Water Resources Institute**

---

**Texas A&M University**

RESEARCH PROJECT TECHNICAL COMPLETION REPORT

Project Number A-021-Tex

September, 1972 — February, 1974

Agreement Numbers:

14-31-0001-3844

14-31-0001-4044

DEVELOPMENT OF CRITERIA FOR EVALUATING  
URBAN RIVER SETTINGS FOR TOURISM-RECREATION USE

Clare A. Gunn, John W. Hanna,

Arthur J. Parenzin and Fred M. Blumberg

The work upon which this publication is based was supported in part by funds provided by the United States Department of the Interior, Office of Water Resources Research, as authorized under the Water Resources Research Act of 1964, P. L. 88-379.

Technical Report No. 56  
Texas Water Resources Institute  
Texas A&M University

June, 1974

## CONTENTS

Preface	vii
List of Tables	ix
List of Figures	xi
Summary	1
 I. INTRODUCTION	 7
Scope of Study	7
Background	8
Basis for Guidelines	8
Phases	9
 II. PRELIMINARY INVESTIGATION	 13
Conclusions	13
Identification of Area	13
Evaluation of Water Stability	14
 III. MOTIVATING FORCES	 19
Conclusions	19
Preservation-Conservation	19
Beautification	20
Commercialism	22
Tourism	23
Local Recreation	24
Resource Development	24
Property Development	25
University Influence	25
Leadership	26
Collaboration	26
Initiation	27

IV. SITE FACTORS . . . . .	31
Conclusions . . . . .	31
Existing Development . . . . .	32
Water Quality . . . . .	33
Air Quality and Climate . . . . .	34
Water Level Fluctuation . . . . .	34
Waterlife . . . . .	34
Water Depth and Flow . . . . .	35
Bank Stability . . . . .	35
River Valley/Open Waterfront . . . . .	36
Scenic Vistas . . . . .	36
Historic Interest . . . . .	38
Houston Example . . . . .	38
V. INFLUENTIAL FACTORS . . . . .	45
Conclusions . . . . .	45
Land Price . . . . .	45
Development Costs . . . . .	46
Land Assemblage . . . . .	46
Owner Policies . . . . .	46
Transportation and Access . . . . .	48
External Factors . . . . .	50
Land Use Controls . . . . .	50
VI. PLANNING . . . . .	53
Conclusions . . . . .	53
Economic Objectives . . . . .	53
Social Objectives . . . . .	55
Trade-Offs . . . . .	57
Financial Planning . . . . .	57
The Actors . . . . .	59
Project Analysis and Staging . . . . .	59
Concept Models . . . . .	61
Design Principles . . . . .	70



VII.	IMPLEMENTATION	73
	Conclusions	73
	Implementors	73
	Funding Agents	76
	Operators	76
	Implementation Pitfalls	77
	Implementation Recommendations	78
VIII.	EXAMPLES	81
	Flint	81
	Houston	82
	Indianapolis	83
	San Antonio	84
	San Jose	85
	Seattle	87
	Wichita	88
	Lansing	89
IX.	CONCLUSIONS AND INFERENCES	93
	References	95

## PREFACE

This is the final report of investigation carried on by the Department of Recreation and Parks, Texas A&M University and supported by funding from the Texas Water Resources Institute and the Texas Agricultural Experiment Station. The project term was from September, 1972 to February, 1974.

The principal investigator was Clare A. Gunn, Ph.D., then professor of tourism-recreation development, Texas A&M University. Dr. Gunn is now with the School of Landscape Architecture, University of Guelph, Ontario, Canada. The identification and evaluation of site factors were performed by Arthur J. Parenzin, then research assistant and now outdoor recreation planner, Department of Recreation and Tourism, State of Oklahoma.

The study of institutional, political and social factors was made by John W. Hanna, then research assistant and now Assistant Professor, Recreation and Parks Department, Texas A&M University. Study of economic, legal and motivating influences was performed by Fred M. Blumberg, then research assistant and now recreation planner, Guadalupe - Blanco River Authority, Victoria, Texas. Other research assistants, such as Dennis Osgood, Curtis Shirer and Glen Wade assisted in gathering data and in preparation of the report.

The authors wish to acknowledge with thanks the excellent cooperation and provision of useful data by many city agencies throughout the United States. The fine cooperation and support by Dr. Jack Runkles and the Office of Water Resources Research are especially appreciated. The art assistance by Judy Wiedermann and typing by Wendy Love are genuinely appreciated.

## LIST OF TABLES

Table	1.	Status of Urban-Core Water Resource Development for Park/Business Use in 119 Large SMSA's . . . . .	27
Table	2.	Sources of Most Visible Leadership As They Relate to Project Implementation . . . . .	74
Table	3.	Sources of Development Funding Related to Project Implementation. .	76
Table	4.	Agencies Responsible for Operations . . . . .	76
Table	5.	Deterrents to Urban-Core Waterfront Developments for Park/Business Use . . . . .	77

## LIST OF FIGURES

Figure	1.	Wichita, Kansas exemplifies the new nationwide interest in downtown waterfront development . . . . .	8
Figure	2.	Diagram of Feasibility Study Phases . . . . .	9
Figure	3.	This riverfront area in downtown Wichita was not unlike many urban water resources . . . . .	10
Figure	4.	A desire to increase the attractiveness and utility of downtown Wichita has resulted in this new urban asset . . . . .	10
Figure	5.	An aerial view of downtown Philadelphia illustrates redevelopment in progress . . . . .	10
Figure	6.	Covering the Delaware Expressway will provide access to the revitalized waterfront . . . . .	10
Figure	7.	Imagination and forethought are needed to see opportunities for redevelopment in spite of unattractive existing situations . . . . .	14
Figure	8.	A thorough preliminary study can reveal potential in some of the most unlikely sites . . . . .	14
Figure	9.	Control of water levels is essential to park/business development . . .	15
Figure	10.	Water stability can be achieved in a variety of ways . . . . .	15
Figure	11.	Preservationists prefer an absence of man-made development . . . . .	20
Figure	12.	Beauty is achieved through a strong architectual treatment in Wichita . . . . .	21
Figure	13.	The San Antonio River Walk provides beauty through informal plantings and a variety of vegetation . . . . .	21
Figure	14.	Commercial interests can derive large profits from a water-oriented park/business development . . . . .	22
Figure	15.	Tourism is also a strong motivating force because urban river developments attract visitors as well as residents . . . . .	23
Figure	16.	An attractive observation area gives visitors a chance to view harbor activities in San Diego . . . . .	32
Figure	17.	Water quality is an important consideration in the evaluation of potential park/business sites . . . . .	33
Figure	18.	. . . But the River Walk in San Antonio is very popular in spite of occasional water turbidity . . . . .	33
Figure	19.	The micro-climate created along the San Antonio River allows a variety of vegetation to flourish . . . . .	34
Figure	20.	Lying below street level, the River Walk is also protected from automobile noise and exhaust . . . . .	34

Figure 21.	Flowing water can contribute variety of sight and sound	35
Figure 22.	Pleasant park-like settings can be developed even if flooding cannot be controlled	35
Figure 23.	Narrow rivers have the advantage of easy bridging and can produce a "corridor effect "	36
Figure 24.	Cities with wide rivers have potential for park/business development but at a different design scale	36
Figure 25.	Urban waters often provide the only source of distant vistas within a congested central city	37
Figure 26.	Controlling vistas outside of the development area may be necessary to preserve aesthetic quality	37
Figure 27.	Map showing the study area of Buffalo Bayou in downtown Houston	38
Figure 28.	Diagram of Buffalo Bayou showing the segments used for evaluation	39
Figure 29.	Expressway columns detract from the park/business potential of several segments of Buffalo Bayou (Segments 9 & 10)	40
Figure 30.	Presently there is no linkage between the convention center and Buffalo Bayou (Segments 17-19)	40
Figure 31.	Nearby Sam Houston Park has a small pond, but there is no linkage between the park and the bayou	40
Figure 32.	The lower portion of the bayou rated fairly high because of the natural setting and absence of discordant features (Segments 36-40)	40
Figure 33.	With skillful design and redevelopment, areas such as this (Segment 26) could have park/business potential	41
Figure 34.	Graph of the scores of each segment of Buffalo Bayou evaluated for park/business potential	41
Figure 35.	Even though the main function of this library is oriented to a nearby street, the river facade is linked with the San Antonio River Walk	47
Figure 36.	The river-side of existing structures can be remodeled to provide waterfront access	47
Figure 37.	The owner of this building adapted his restaurant to provide an orientation to the river	47
Figure 38.	Circulation within the park/business complex can be an attraction for tourists as well as transportation for local citizens	49
Figure 39.	Economic activity has been stimulated in downtown Wichita by waterfront development	54
Figure 40.	Waterfront cafes and shops are attracting visitors and residents to downtown Seattle	54
Figure 41.	A waterfront park-like setting can provide for both private relaxation and social interaction	55

Figure 42.	A combination of natural water flow and man-made fountains adds to the pleasure of visiting the Arkansas River in Wichita . . . . .	56
Figure 43.	The renovation of old structures in downtown Sacramento demonstrates that urban renewal can include the use of existing buildings . .	56
Figure 44.	The presence of park rangers provides River Walk visitors with a feeling of security . . . . .	57
Figure 45.	A park/business development can make use of a variety of federal and local sources of funding . . . . .	58
Figure 46.	An illustration from <i>Mississippi/Minneapolis</i> shows that a well-illustrated report can provide the base for further development . . . . .	60
Figure 47.	Model "A" Given . . . . .	62
Figure 48.	Model "A" Function Plan . . . . .	62
Figure 49.	Model "A" Concept Plan . . . . .	63
Figure 50.	Model "B" Given . . . . .	64
Figure 51.	Model "B" Function Plan . . . . .	64
Figure 52.	Model "B" Concept Plan . . . . .	65
Figure 53.	Model "C" Given . . . . .	66
Figure 54.	Model "C" Function Plan . . . . .	66
Figure 55.	Model "C" Concept Plan . . . . .	67
Figure 56.	Model "D" Given . . . . .	68
Figure 57.	Model "D" Function Plan . . . . .	68
Figure 58.	Model "D" Concept Plan . . . . .	69
Figure 59.	The Flint River has potential for recreational development . . . . .	82
Figure 60.	Allen's Landing Park has been the only development on Houston's Buffalo Bayou . . . . .	82
Figure 61.	The Indianapolis Water Company Canal has potential for park/business development in spite of existing conditions . . . . .	83
Figure 62.	The San Antonio River Walk demonstrates that a small amount of water can be powerful . . . . .	84
Figure 63.	San Diego Harbor provides tourists with a variety of attractions . . . .	85
Figure 64.	San Jose is implementing a plan to develop its urban water resources for tourism and recreation . . . . .	86
Figure 65.	Commercial establishments in Seattle could be enhanced by the development of a water-oriented park/business complex . . . . .	87
Figure 66.	Wichita has successfully linked the Arkansas River with nearby parks and business enterprises . . . . .	88

## SUMMARY

An earlier study, *Cultural Benefits from Metropolitan River Recreation — San Antonio Prototype*, (Gunn, et al., 1972), revealed that urban water resources can be successfully developed for tourism and recreation. The San Antonio River Walk is a unique demonstration of a new amalgam different from either parks or tourist business clusters. It draws upon both for success. It shows the synergistic effect of a park/business mix.

Because few other cities have created a park/-business complex from their downtown water resources, the purpose of this study is the development of criteria through which cities may evaluate their potential for this use. The general guidelines offered here will require special adaptation to local conditions.

The basis for the recommended guidelines in this report came from three primary sources. First, the River Walk Study provided insight into one very successful park/business development. Second, research studies by Hanna (1974) and Parenzin (1973) described urban park/business development in other cities, developed physical factor criteria and identified influential action agents. Third, the researchers examined recreation, tourism, land design and planning literature for information of value to this development problem.

The authors recommend three phases of investigation based upon this research: preliminary investigation; study of motivating forces, site factors and other influential factors; and planning and implementation.

### PHASE I

#### Preliminary Investigation

This step should identify and perceive anew the water resources of downtown. Water resources within a five-minute walking distance of the central business district have the greatest potential for park/business development.

In this preliminary investigation, existing visual blight should not obscure the area's potential for park/business development. It is essential, however, that water levels be controlled to prevent damage from flooding.

### PHASE II

#### Motivating Forces

The researchers found that one or several motivating forces were important in influencing either interest in or actual development of an urban water-oriented park/business complex. Preservation organizations can provide valuable support for such a development if their orientation is conservation and human use rather than strict preservation. Tourist, commercial, park and recreational interests are essential to the success of a park/business complex. Each group must recognize the importance of the other in creating a cohesive and yet diverse entity. Other motivating forces might include beautification groups, university environmental groups, resource development organizations and riparian land-owners.

The successful utilization of these motivating forces requires leadership, knowledge of the groups and factions and the ability to coordinate. Because these groups have individual goals and separate policies, they must recognize the synergistic potential of working together.

#### Site Factors

The investigation of the site should begin with an analysis of existing development. This investigation should be executed with vision and imagination. Some seemingly unsuited land uses, such as industries and port activities, may prove to be assets.

Other factors also must be considered: water and air quality, climate, waterlife, bank stability, topography, river width, historical interest and scenic vistas.

Water level fluctuation is an extremely important factor in an evaluation. Flooding must be controlled to permit permanent construction. However, control of only a relatively small water body can become a very powerful base for successful development.

One portion of this study was devoted to a site analysis of Buffalo Bayou, Houston, using twenty-one factors designed by Parenzin (1973). He found that a portion of the Bayou had potential but that generally the ratings were not outstanding. Even so, several of the negative factors (excessive water fluctuation, turbidity, lack of river valley fauna) may be corrected with adequate remedial measures.

#### Influential Factors

In addition to site characteristics, other factors can have direct bearing on the potential for park/business development. Some of the more important influencing factors were

found to be: land price, development costs, land assemblage, owner policies, transportation and access, external influences and land use controls. At times and in certain cities, these influences may be either negative or positive.

### PHASE III

#### Planning

The planning of a park/business complex must consider both economic and social objectives. The economy may be stimulated by attracting tourists, introducing new development, and producing additional tax revenues. At the same time, a park/business complex is a civic amenity. As such, it can produce a more pleasing urban environment for relaxation, social interaction, nature appreciation, and vibrant night-time activity. The attractions within such a development can serve both residents and visitors.

Financial planning is one of the most important aspects of total planning. Land values, potential revenues, competition with other land uses are just a few of the important financial factors a city should consider. Because both private and public sectors are involved, funding can come from a wide variety of governmental and commercial sources. Several governmental agencies are able to fund part or all of a park/business complex. Experience is showing that private interests are providing the financial support in several cities. The best planning will come from the best coordination of financial sources for all phases of investigation and development.

This study includes an evaluation of the several actors in planning, revealing that the city planning departments generally provide



the greatest input. Some planning input has come from private consultants and many cities are now seeking more assistance from citizen's groups. The planning process is most productive when it utilizes a variety of professional and technical inputs through team action.

A park/business complex requires an overall plan that includes definition of functional relationships as well as conceptual design schemes. It must be buildable but at the same time retain enough flexibility to meet future needs.

Recommended is planning in several stages (four are suggested) rather than developing only one master plan.

1. Land development needed to prepare for the establishment of a park/business complex.
2. Top priority development projects within an overall master plan.
3. A long-range plan that identifies projects based upon the experience of the first two stages.
4. A complete overall plan that meets all goals.

A portion of the study effort was devoted to the development of four park/business design models. These represent four different typical city conditions for which functional diagrams and conceptual schemes were developed (Green, 1974).

#### Implementation Strategies

Based upon a survey of 119 U. S. cities with urban water resources, and interviews and observations in nine cities, information on

implementation problems and opportunities were developed. Slightly over half of the proposals for urban water park/business development reached the planning stage but less than one-third have been implemented. When comparing four groups (private individuals, non-government groups, political leadership and city groups or departments), those most frequently initiating action were non-government groups. However, projects that reached development had almost twice the support from government group leaders as from the mayor or city manager.

Those projects reaching implementation were generally funded from federal sources. However, bonds and private funds were also employed in some cities.

In spite of the relatively low number of plans reaching implementation, the survey showed that little expressed opposition. Some pitfalls were identified: competing land uses, ownership restrictions and threat of flooding were most frequently cited as deterrents to urban waterfront development.

The study by Hanna (1974) made several recommendations for implementation:

1. Treat every site on its own merits.
2. Obtain both legal and financial commitment to a project.
3. Know the supporting and opposing forces at all times.
4. Assess funding possibilities.
5. Involve citizen groups as much as possible.
6. Prepare to accept inflated land values.
7. Study decision-making patterns of the past; identify key role-players.



# 1. INTRODUCTION

## SCOPE OF STUDY

The criteria through which cities may evaluate their potential for developing downtown water resources as civic amenities for tourism and recreation is the subject of this study. It is a follow-up of the study in 1971-72 of design, use and management of the San Antonio River Walk (River Walk Study).\*

The River Walk Study revealed findings important to other cities as well as to San Antonio. The River Walk is a unique demonstration of a new amalgam different from either parks or tourist business clusters taken individually but drawing upon both for success. It demonstrates the synergistic effect of a park and business mix. This park/business complex offers a downtown focus that is powerful and yet small, unified but diverse, socially valuable and yet profit-making. As a case of accomplished fact, it demonstrates principles useful to other cities with water resources. It shows that a revitalization of downtown can be accomplished; that a small amount of surface water can be very important, that collaborative management is possible, and that both local citizens and tourists can be satisfied and even enthusiastic about a development used in common.

However, few other cities have created a park/business complex from their urban water re-

sources. Why haven't they? Should they attempt to replicate the San Antonio experience? These and related questions were being asked by civic leaders and laymen from cities throughout the country. Because no research effort had been started to provide answers to these and related questions, this investigation was initiated.

It should be emphasized that this study is concerned primarily with a focal point along a city's waterfront in the downtown area. It may be a part of a total greenway or parkway development of much greater extent. The purpose is to place emphasis upon that portion of water resource assets in the downtown core to determine its potential in that setting. The remaining segments of a greenbelt may need entirely different approaches and planning solutions.

At the outset, it was recognized that such a study would have to be very broad because the development of urban water resources for park/business use involves many intricate and complicated aspects of cities--physical, political, social and economic. Therefore, the study was directed toward the goal of providing cities with general guidelines that could help them with both facts and suggestions for accomplishment.

The guidelines described in the following pages will be of varying utility to cities because of different local conditions. For the city with little accomplished physical development, these guidelines have been designed to offer assistance throughout the develop-

\* Throughout this report the title "River Walk Study" refers to Cultural Benefits from Metropolitan River Recreation — San Antonio Prototype by Clare A. Gunn, David J. Reed and Robert E. Couch.

ment process. For other cities with several phases already an accomplished fact, some of the principles still may be applicable. In all cases, the researchers emphasize the need for individualized adaptability to local conditions.

## BACKGROUND

A major city resource, once defiled but now having a renaissance of interest, is that of water. For generations, water in American cities was synonymous with waste removal. Urban rivers, streams, canals and lakes became the convenient dumping area for industrial and household wastes. But today, a few citizens and civic leaders are awakening to the potential of their urban waters for the cultural enrichment they hold.

In recent years, national interest in open space and parks has been focused on the remote and wilderness areas, somewhat at the neglect of cities. Millions of people are interested in the daily quality of their nearby environment. It is within the city that people can walk to and enjoy the pleasures and enrichment of the cultural and aesthetic amenities--if they are available. Because so many cities have an open water resource, they have abundant opportun-

ity for utilizing it for leisure and recreational use. Some cities are becoming aware of the potential of their water resources, such as Minneapolis.

*It seems almost inconceivable that a city of nearly half a million people in the center of a metropolitan area of four times that number, and straddling a 12-mile segment of the greatest river in North America, has but three distinct places (two restaurants and an inn) in that river where any kind of entertainment or culture can be enjoyed (Mississippi/Minneapolis, 1972:19).*

A beautiful, pleasurable and financially viable waterfront is already a fact for a few cities. This study revealed that several cities such as San Antonio, Baltimore, Cincinnati, St. Louis, Wichita, San Diego and Spokane, are deriving both social and economic benefits from their urban water developments.

## BASIS FOR GUIDELINES

The basis for the recommended guidelines in this report came from three sources. First, the River Walk Study provided much insight into one very successful park/business development. This study examined the environmental characteristics of the River Walk--its landscape

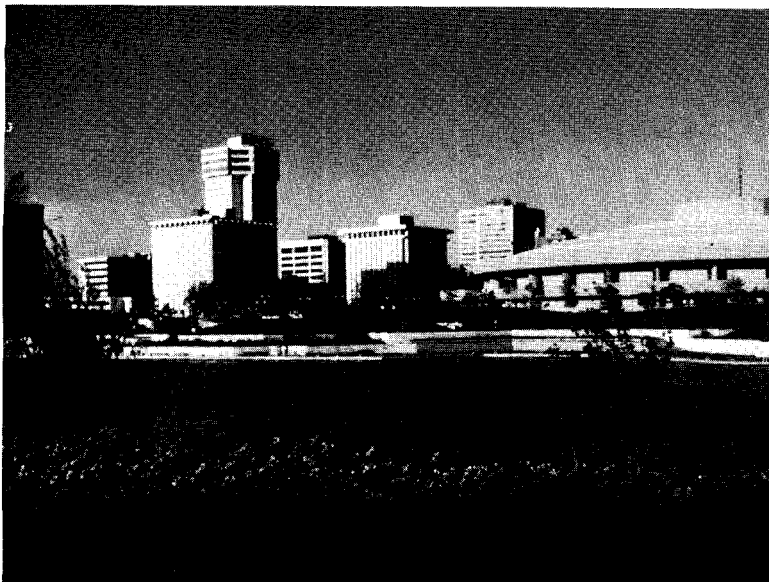


FIGURE 1.

Wichita, Kansas exemplifies the new nationwide interest in downtown waterfront development.

features, the business development and the overall quality of development. It included a survey of users--both local and tourist visitors. It also studied the several management agencies and organizations. Second, special research studies by Parenzin (1973) and Hanna (1974) investigated urban park/business development in other cities and in-depth interviews were carried out in nine cities. Parenzin developed physical factor criteria using a panel of planner-designers and experimented with his method in Houston. Third, the researchers examined recreation, tourism, land design and planning literature to gain insight into concepts and practices that would be of value to this development problem.

## PHASES

This study revealed to the investigators that even though no two cities were exactly alike in physical development or organization, it was highly probable that a common set of guidelines could be adapted to varying local conditions. The authors recommend three phases of investigation, based upon the limited park/-business experience available among cities and the state of the art of planning and design generally.

First, preliminary investigation is needed to identify water sources in the downtown area and to assess their characteristics, especially whether they can be controlled. There is little need for proceeding further in planning or development if flooding is a threat.

Based upon the outcome of the preliminary investigation, a city can then enter into the second phase of investigation. This phase includes three areas of study that can be carried on concurrently. An appraisal of the motivating forces within the city should be made. An analysis of the site factors will indicate the potential of an urban setting for park/business use. In addition, there are factors, such as land economics, transportation and certain externalities that need to be investigated. Conclusions reached at this phase can provide the basis for the final phase.

The final phase includes both planning and implementation. The recommendations given here reflect both the pitfalls and successes of existing development of urban water resources.

The following discussion is intended to provide cities with general approaches they can apply to their individual situations if there is a desire to develop downtown waters into a park/business complex.

FIGURE 2.  
Diagram of Feasibility Study Phases.

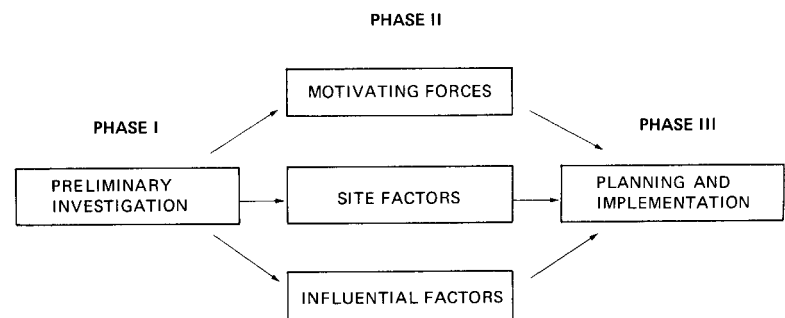




FIGURE 3.

This riverfront area in downtown Wichita was not unlike many urban water resources.

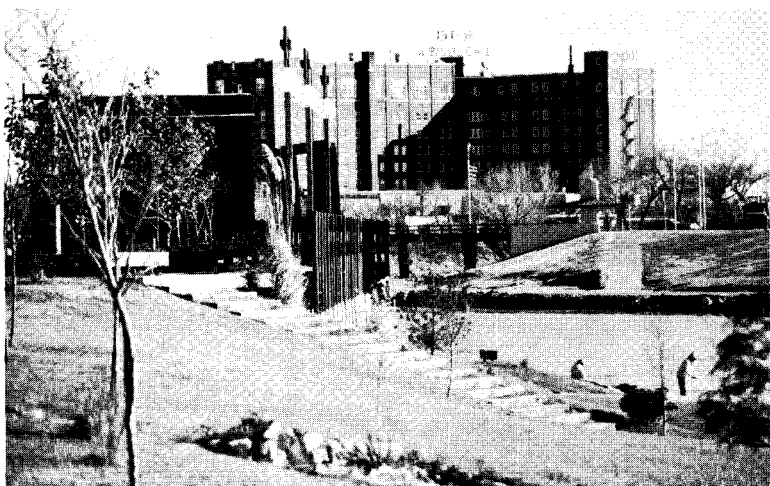


FIGURE 4.

A desire to increase the attractiveness and utility of downtown Wichita has resulted in this new urban asset.



FIGURE 5.

An aerial view of downtown Philadelphia illustrates redevelopment in progress.

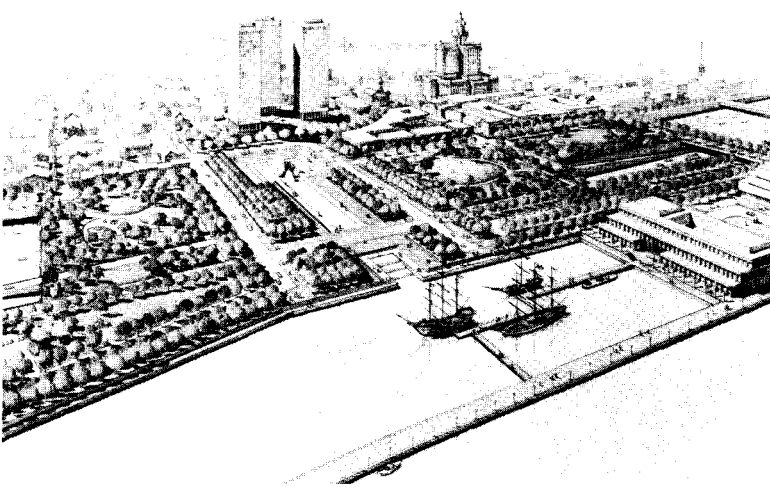
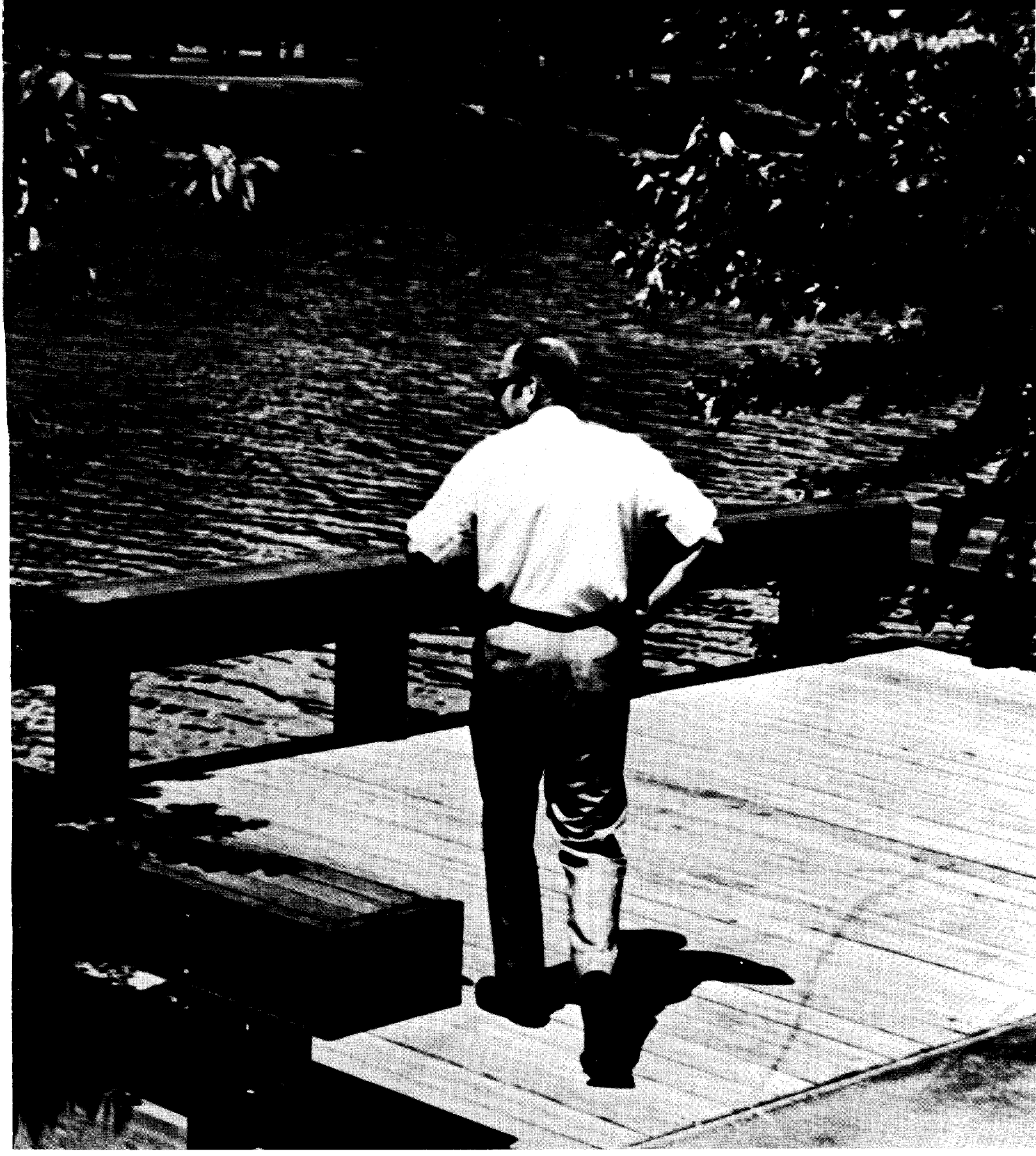


FIGURE 6.

Covering the Delaware Expressway will provide access to the revitalized waterfront.





## 2. PRELIMINARY INVESTIGATION

### CONCLUSIONS

*1. The first phase of investigation the potential for park/business development of an urban water resource is that of making a quick and low-cost preliminary investigation.*

*2. This preliminary phase should identify and perceive anew the water resource areas of downtown. Visual blight should not obscure potential of redevelopment into a park/business complex. Water resources within a five-minute walking distance of the central business district have the greatest potential.*

*3. There is no need to pursue the issue in greater depth if the water level cannot be controlled to prevent flooding of major structures. A controlled water level is essential to permanent construction of a park/business complex. However, control of only a relatively small body of water can suffice for park/business use.*

Throughout their study the writers were impressed with the general lack of perception of the urban core water resource characteristics, by both laymen and civic officials. Civic leaders generally viewed the urban core through economic land development approaches. The surface water resources were either ignored or viewed as obstacles to progress. If waters have been screened from view or are fronted with low-quality land use, they have usually dropped from public interest.

Therefore, it may be necessary to change attitudes toward the urban core and begin to view its waters as having new potential. A walking reconnaissance tour of the downtown water areas, accompanied by photographic documentation, could be quite revealing. The reaction from a perceptive person who can see beyond trash, weeds or hard concrete is needed to identify the water resource assets. For example, a conservationist in Lansing, an architect in San Diego, a planner in Wichita, a landscape architect in San Francisco and a journalist in Indianapolis have sparked interest in rejuvenating urban waterfront areas.

### PRELIMINARY IDENTIFICATION OF AREA

The area of greatest potential needs to be defined. If a park/business complex is to serve its main function of stimulating revival of downtown, it should be within close walking distance of the central business district. For example, water areas more than five minutes from the central business district may have other business or park potential but are not likely to fulfill a vital rejuvenating function for the downtown area.

The area definition should be kept flexible. Although land uses now surrounding neglected waters may not have been developed as part of the central business district, the potential must be considered. Therefore, all downtown areas should be included in the preliminary investigation.



## EVALUATION OF WATER STABILITY

No park/business complex can be successful if the water levels cannot be controlled. Therefore, an examination of the history of flooding and the extent of water stabilization is essential. One should not jump to conclusions too quickly, however, regarding water level control. Engineering hydrology may demand certain measures be taken to control the water problem of the inner city. In some instances, drainage structures can be attractive and recreationally useful. In other instances, however, it will be difficult to convert floodways into aesthetically desirable places. Sometimes, it may be entirely feasible to control only one portion of the flood plain, diverting flood waters into other water courses.

For example, the stabilization of only a small part of the San Antonio River has been fundamental to the success of the San Antonio River Walk. The horseshoe bend that now has become the park/business complex, is a part of, but is separated from, the main floodway canal. During flood time, the River Walk, by manipulation of movable dams, is protected from flooding. During the preliminary phase, one should not necessarily look for large water area. The River Walk example proves that even a relatively small amount of water can provide the focus for outstanding park/business development.

The preliminary investigation is especially critical because poor information, biased opinion or vested interest can create opposition that may take many years to correct. When

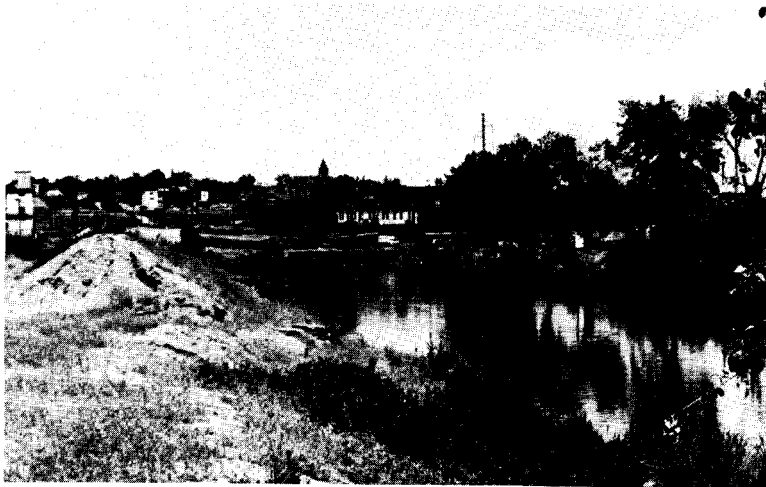


FIGURE 7.

Imagination and forethought are needed to see opportunities for redevelopment in spite of unattractive existing situations.

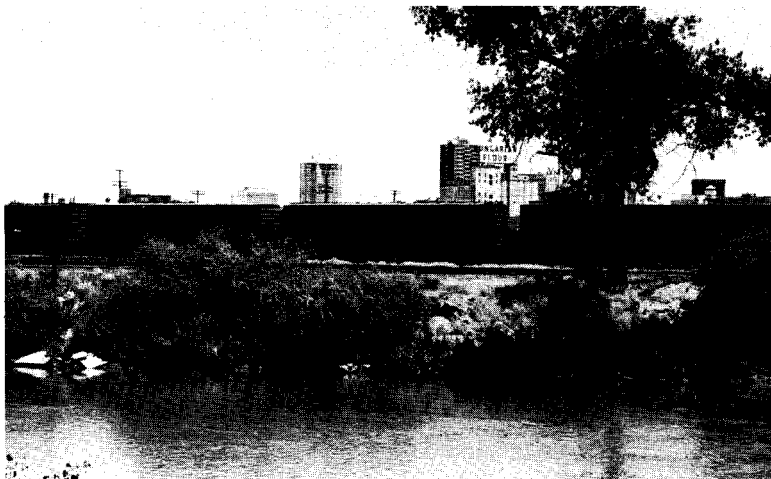


FIGURE 8.

A thorough preliminary study can reveal potential in some of the most unlikely sites.

an issue becomes emotionally heated, sound judgement is unlikely. If issues already exist, it may be necessary to bring in outside consultants to make an objective preliminary investigation as a basis for arbitration of the issues. For example, open-minded consideration of flood control alternatives should take precedence over single-minded engineering solutions.

If this first phase of investigation shows that there may be opportunities for the development of a beautiful and useful park/business complex, more detailed investigation and planning can be initiated. The following phases describe guidelines for these critical steps.

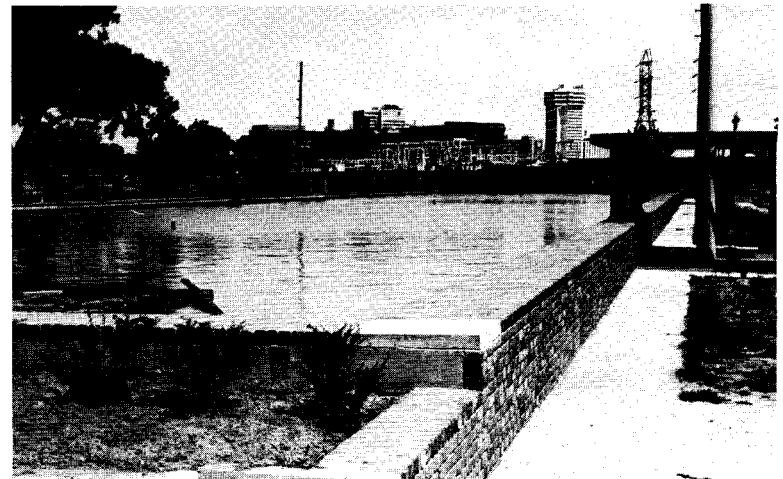
FIGURE 9.

Control of water levels is essential to park/business development.



FIGURE 10.

Water stability can be achieved in a variety of ways.





### 3. MOTIVATING FORCES

#### CONCLUSIONS

1. *Preservation agencies and organizations, predictably may polarize against development of a park/business complex proposal if their orientation is strict preservation. However, they may support it if their orientation is conservation and human use. Protection and maintenance of high environmental quality are essential ingredients in the proposals.*

2. *Commercial and tourism interests are essential to the success of a park/business complex. At the same time there is a need to recognize that all land cannot be occupied by business--there must be landscape and historical amenities nearby. The business impact reaches far beyond the site required by the complex itself.*

3. *Those groups supporting recreation movements in the city may see the value of establishing a park/business complex but also may expect a wider range of recreational use than is feasible. Their support is valuable provided that they do not demand more than the site or the anticipated functions can allow.*

4. *Beautification and university environmental groups provide one of the strongest forces toward the establishment of a park/business complex provided that they accept related functions of recreation and commercialism.*

5. *Resource and property development forces are extremely important because*

*of their ability to prevent or foster the establishment of needed services and facilities.*

6. *Groups represent individuals. These individuals need to be members of, or have access to, the community power structure to be effective.*

7. *Because of their separate philosophies and practices, the several forces that might have an influence on a park/business complex must be coordinated if progress is to be made.*

This investigation revealed that within a city, one or several motivating forces might be important in influencing either interest in or actual development of an urban park/business complex utilizing water resources. Some were found to be of greater importance than others at different stages. Some were heavily involved and others were peripheral. A few had no historical evidence of influence in the future. The more important motivating forces are those of preservation-conservation, beautification, commercialism, tourism, local recreation, resource development, property development and university influence.

#### PRESERVATION-CONSERVATION

An increasing number of individuals and groups nationwide are concerned with environmental issues and are taking positions against development and for "preservation". When preservation is interpreted to mean the absolute "locking up" of a resource area and the disallowing

of any human use, there will be difficulty in carrying out any plans against such opposition.

However, when preservation is interpreted to mean the perpetuation of certain values, such as heritage or natural resource beauty, there is an admission of the need for some development for human use. In order to preserve the history it may be necessary to restore buildings and sites. In order to preserve the natural beauty, a progressive planting program may be necessary to replace trees and shrubs as they mature and die. In order to gain educational, inspirational and leisure values from these settings, interpretive programs may be needed.

Volunteer preservationists are becoming increasingly influential, financially and politically, especially among women's groups. Out of the 22 million Americans involved in non-political and non-religious volunteer work in 1965, 13 million were women (*Hobbies*, 1970:88). As Alexis de Tocqueville said in 1835, "The three keys to American democracy are involvement, civic spirit and volunteerism" (*Hobbies*, 1970:76).

Although preservation and protection groups such as the Sierra Club and the National Trust for Historic Preservation are often the initiators of action, they more frequently respond

to a threat to the historical or aesthetic integrity of the waterfront. Sustained protection usually comes from a governmental agency. Many historic sites and natural monuments become the responsibility of the National Park Service or a state or local public agency. Strict preservation-oriented groups may polarize against an urban water park/business complex whereas conservation oriented groups may be an ally. The San Antonio Conservation Society, for example, is a strong supporter of not only historic and natural resource protection but also of the introduction of landscape enhancement. They also recognize the need for portions of the River Walk to be devoted to commercial visitor services.

## BEAUTIFICATION

Like the preservationists, the people interested in community beautification are broadening their objectives toward civic improvement. Community beautification now involves political influence, zoning ordinances and deed restrictions to clean up junk yards and stop the visual pollution associated with urban sprawl. Planting flowers and picking up litter are still parts of the strategy, but they are far from the total picture. Beautification groups are now



FIGURE 11.

Preservationists prefer an absence of man-made development.

doing more through political influence than individual effort.

National organizations such as the Garden Club of America and Keep America Beautiful, Inc., are interested in promoting development which clean up urban blight and put life back into downtown areas. Many can be found at the state level, such as the Beautify Texas Council.

The East Lansing (Michigan) Aesthetics Committee was created in 1970 to recommend ways to improve the entire aesthetic quality of that city. The Committee has become "... a tool for community action, and involvement

characterized by grassroots participation for effecting urban change and growth" (Bujnowski, 1972:20). The organization is considering an environmental impact program to review all public improvements on a qualitative and environmental basis.

Preservation and beautification groups are increasingly more influential as motivators in all types of urban development. Groups and individuals are now in a position to seek and receive the support of chambers of commerce, civic clubs, schools, youth organizations and extension service agencies. Much of this support is a result of the new awareness of environmental problems.

FIGURE 12.

Beauty is achieved through a strong architectural treatment in Wichita.



FIGURE 13.

The San Antonio River Walk provides beauty through informal plantings and a variety of vegetation.



## COMMERCIALISM

Located on the opposite end of the spectrum from preservation and beautification, commercialization is a third force which can promote urban river development. Although community improvements may be a secondary result, commercialization has the major aim of producing a financial profit. Despite increasing land prices and constant reinvestment pressure, waterfront property has the potential to create enormous monetary returns.

The motivation to develop urban waterfront property commercially may take innumerable shapes. An individual may develop the property as a single firm such as a hotel, restaurant or boat rental shop. A real estate syndicate may develop the property entirely for speculative purposes with no intention of making long range plans. Becoming just as common is the development of large sections of the central business district into business and residential clusters.

Texas Eastern Transmission is building a 33-block, \$1.5 billion mini-city called Houston Center in the downtown area of that city. This development will include hotels, motels, stores, apartments and theaters (Ashby, 1973:3/B). A riverfront project with similar facilities is being constructed in Detroit at a cost of \$500 million. Not to be outdone, New York City has a \$1.2 billion project being constructed along the East River from Brooklyn Bridge to

the Battery (*U. S. News and World Report*, 1973a:58).

Despite an exodus to the suburbs of the last two decades, the central business district is still the "prestige space" of metropolitan areas (Meyerson and Banfield, 1966:63). It appears that the main office centers will remain downtown, and developments like those in Houston, Detroit, and New York City promise to be both popular and profitable.

Commercial development forces can be extremely important in initiating and promoting urban river development. In addition to the financial power that these groups possess, they also exert a tremendous political influence. They are in a position to disregard long-term city and regional plans. In some cities, the real estate organizations and builders' groups have been the planning-decision makers. Until recently, commercial developers have not been required to consider the environmental consequences of their projects. Unlike the preservationists and others interested in community improvement, the people promoting commercial development may not even be local residents.

There is another commercial aspect regarding urban waters--shipping commerce on the waters. From the viewpoint of establishing a park/Business complex, this may reduce the kinds of recreational activities possible but it will not eliminate the possibility. The parade



FIGURE 14.

Commercial interests can derive large profits from a water-oriented park/business development.

of ships may become a new activity of importance to both local and outside visitors. Tour boats may also increase the value to visitors.

Commercialism in an urban park/business complex does have some limitations of type. The primary businesses are those serving the immediate leisure and recreational needs of visitors food service, entertainment, souvenir sales and lodging. These will be the dominant types needed and therefore the most successful in the immediate environs.

However, the impact of the park/business complex upon other commercialization is much greater. Surrounding businesses benefit by having a popular, respected and attractive neighbor. This heightens the business climate, making downtown a favored rather than a disfavored location for new business. A park/business complex stimulates tourism. It becomes a major attraction, causing visitors to spend time and money in the entire community. For example, over 70 percent of the users of the San Antonio River Walk are out-of-city tourists.

Increased commercialization is often believed to be synonymous with new construction. It is now being demonstrated that many old buildings are sound and have utility beyond that of a museum. Historical interests are encouraging restoration of the facade but recognize the need for modern functions in the interior.

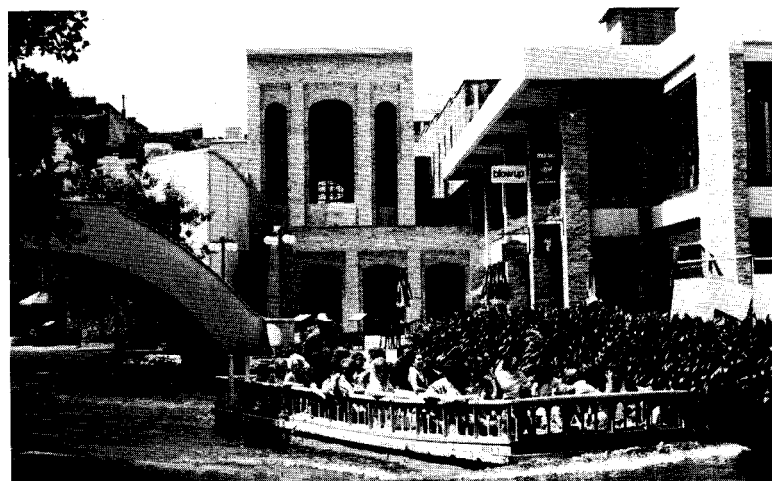
## TOURISM

Development for tourism is closely akin to general commercialization. Although the profit motive is still present, tourism has a wider impact on the whole community and is very compatible with park/business development. Because tourism encompasses such a wide range of business enterprises and activities, the leadership of this motivational force is usually in the hands of a tourism and convention commission or board. Individual types of business interests such as hotel/motel owners, marina operators and resort owners may also have organizations to promote their interests.

Tourism has gained greater influence among big business, political, civic and educational leaders because its economic stimulus has advantages over other forms of commercialization: a) the tourist dollar is earned outside the community and is therefore new money; b) tourist dollars are shared directly or indirectly with the whole community; c) goods and services can be sold without transporting them because the market comes to the producer; d) visitors contribute to the tax revenues through purchases of gasoline, food and lodging; and e) tourism creates jobs in many diverse segments of the economy (Texas Tourism Development Agency, n.d.:6).

FIGURE 15.

Tourism is also a strong motivating force because urban river developments attract visitors as well as residents.





Tourism can be compatible with local use. Outside visitors to the River Walk in San Antonio, for example, make up over 70 percent of the total. Tourism aspects of a park/-business complex are important and should receive full support from tourist agencies and organizations.

## LOCAL RECREATION

The status of recreation in urban living has been well established and supported in most cities. But, the recreational forces of a city are not necessarily cohesive. The "little leaguers" are not necessarily of the same philosophy as the tennis buffs. And, those promoting sports do not have the same needs as bird-watchers.

A park/business complex related to water in the urban core is better suited to some recreation activities than others. Therefore, the public interest in many activities may be satisfied better at some other location. For example, a large stadium and its vast seas of parking areas do not depend upon water resource activities. Therefore, it does not have a functional relationship to water and should not preempt a waterfront location.

The dominant recreation activities that are most appropriate for the small water bodies in the urban setting are scenic appreciation and walking for pleasure along or near the shoreline. Boating, fishing and swimming may be possibilities on larger water bodies but may need to be prohibited on small ones. Limited use of sight-seeing boats such as on the San Antonio River Walk may be a feasible solution.

There are three separate groups involved in providing recreation. Governmental agencies provide a wide variety of activities, usually as a public service, at little or no cost. Non-profit

organizations such as churches, youth groups and service clubs often provide recreation for their members. Commercial recreation plays a role in tourism because the activities are provided to create a profit. Amusement parks, movie theaters and boat rentals are examples of commercial recreation.

Community recreation is usually considered to be a responsibility of local government because local government is closest to the people and is supposedly more aware of their needs and interests (Meyer, Brightbill, and Sessoms, 1969:96). Local governments are, however, facing a severe fiscal crisis because of reduced tax revenues and increased demands for services. Recreation is in a particularly vulnerable position because it is less directly related to survival than other municipal services such as sanitation, police and fire protection (Kraus, 1971:3). Increased land costs are hindering the acquisition of new inner-city recreational areas. Increased competition for open space downtown will make it more difficult to retain existing parks.

Increasingly, social and welfare justification will be used to establish and maintain open and park space downtown and throughout the city. "Thus, there is great likelihood that the provision of urban park facilities and programs will be increasingly guided by social welfare motives with greater emphasis on providing those opportunities for which people cannot afford to pay directly, nor travel far from their residence to obtain" (Reid, 1964:107). Local governmental entities will be promoting more private and commercial recreational facilities for those who can afford to use them.

## RESOURCE DEVELOPMENT

The individuals and groups interested in the development of water resources provide an-

other motivational force. Although these forces may motivate a community to act, they are often a factor in guiding or controlling development.

The Corps of Engineers, U. S. Army, is the primary national agency concerned with water resource development. Since the 1800's the Corps has had the responsibility for controlling navigation and inland waterways. In 1936 it was given flood-control responsibility and began building large-scale dams, flood walls and spillways. Since that time the Corps of Engineers has also taken on a responsibility for providing outdoor recreation.

Special purpose districts such as river authorities and soil conservation districts also promote and control waterfront development. In addition to controlling water releases, selling hydro-electric power and enforcing water quality standards, many river authorities are involved in providing recreational facilities.

Other local groups may be interested in resource development. The League of Women Voters often participates in water resource programs at all levels of government.

## PROPERTY DEVELOPMENT

Riparian land owners may be very interested in promoting waterfront development for tourism and recreation. Normally a landowner is trying to derive the greatest possible economic gain from his property, either through development or speculation. A property owner, especially along a waterfront, is often concerned with adjacent development because it can influence the economic and social worth

of his holdings.

The River Walk Study showed that seventy percent of the property owners along the San Antonio River Walk are not directly oriented to it as a park/business complex. However, they reported that they are still in favor of the River Walk's blend of park and business; they do not favor a greater commercial influence. The property owners are also in favor of the building and sign regulations which restrict incompatible development along the River Walk. As a group, these property owners exert an influence over future development of this unique complex.

## UNIVERSITY INFLUENCE

The various departments of colleges and universities are becoming more active in initiating river development projects. The recent increase in environmental awareness and the greater federal funding available for research have led universities to broaden their secular activities. Research and extension efforts in engineering and agriculture are being strengthened to encompass environmental, social and urban problems.

The French Quarter in New Orleans will benefit from the work of architecture students from Tulane University. The students designed a mall-type promenade to separate pedestrians and automobiles along Bourbon and Royal Streets. Their project prompted Mayor Moon Landrieu to state, "One of the great assets of the city is an academic community willing to help solve the very real problems that face us." The mayor has a Council of Universities to solicit and coordinate the assistance of local schools.

## LEADERSHIP

Effective leadership is necessary to initiate the urban-core waterfront development for park/-business use. To be effective, that leadership must be responsive to individuals within groups who shape group activity and control direction of group efforts.

Analysis of the motivating forces behind urban-core waterfront development for park/business use revealed that much of the impetus for development came from influential individuals working through group leadership in order for group leadership to be effective, it had to have access to the community decision makers. Without access to the community power structure, group leadership was generally forced through the usual channels of city business.

With access to the community power structure, group leadership was sometimes able to present a sufficiently strong case for urban-core waterfront development for park/business use to gain a position for it on the "hidden agenda".

## COLLABORATION

Equally important to knowing the groups, factions and forces that have separate interests in urban waterfront development is understanding how the separate units may be coordinated. Experience has demonstrated the merits of strong leadership and that separate interests must work together toward a common good. The San Antonio experience proves that this can be done. Each force strives toward its own individual goals but is willing to work with others to establish and maintain a viable park/business complex.

During this phase of social-institutional investigation it is wise to avoid polarization of the several interests. The purpose at this point is to be aware of the separate approaches that might be made and to plan for their collaboration. Phase III, Planning and Implementation, offers more guidance on collaborative effort during implementation.

The groups which promote tourism development often do not realize that this activity is dependent upon a wide range of other forces. Preservation, protection, beautification and commercialization can be extremely important in a successful tourism development. The problem is to effectively coordinate these seemingly-conflicting forces.

The San Antonio River Walk is successful because it attracts and satisfies tourists and residents. Hotels, motels and restaurants are economically successful as are parking lots and business offices. Preserved historic buildings are an invaluable feature of the area. The whole complex has served to beautify a previously blighted area.

Other successful combinations of tourism, commercialization and preservation include Old Sacramento and Seattle's waterfront. Old Sacramento is being reconstructed through the redevelopment concept whereby the city has purchased, redeveloped and is now leasing office and business properties for a profit. The boom town of gold rush days is once again alive. Seattle's waterfront is serving a local and tourist public by retaining a strong maritime orientation. Import shops, seafood restaurants and marine services appeal to all comers.

## INITIATION

In a study of 119 of the largest SMSA's (Standard Metropolitan Statistical Areas) in the United States, 68 reported some type of proposal had been initiated for the development of a park/business complex adjacent to the waterfront. Over 2/3 of the proposal activity has been within the last eight years (Hanna, 1974).

Most proposals had been initiated by either a government group or department (i.e. Planning Department or Mayor's Advisory Committee) or a non-government group (i.e. Chamber of Commerce or American Institute of Architects). The proposals that have actually resulted in development most frequently came from non-government groups.

Political leadership provided the most propos-

al support. Most survey participants saw the role of city groups or departments along with non-governmental groups as important in providing the material to initiate proposals. Then the city groups or departments tend to step back and let non-governmental groups and political leadership develop support for the project.

Only 29 percent of the respondents reported any opposition to the initial proposals. This opposition was identified in four primary areas: property owner, private groups or individuals, environmentalists and government.

Table I shows the status of urban-core waterfront development for park/business use in the 119 large SMSA's. Only about one-fifth of the cities with proposals have developments. This suggests that there are sources of obstacles other than those reported.

Table 1

### STATUS OF URBAN-CORE WATER RESOURCE DEVELOPMENT FOR PARK/BUSINESS USE IN 119 LARGE SMSA's

Number	Percentage	Development Status
119	—	SMSA's reporting
12	—	No suitable water resource
107	100	SMSA's with some potential for concept development
68	63	Have a proposal for concept development
60	56	Proposals have reached the planning stage
28	26	In some stage of physical implementation or are completed developments
14	13	Development is completed



## 4. SITE FACTORS

### CONCLUSIONS

1. *Investigation of the present development within a proposed park/business site should reveal opportunities as well as obstacles. Some development, such as industries and port activities, may prove to be assets rather than obstacles.*
2. *Water use for an urban park/business complex is primarily aesthetic. Therefore, water characteristics and potential should be judged accordingly.*
3. *Evaluation of the present conditions of water quality, fluctuation, depth, flow and waterlife should be made with ample consideration of the possibility of implementing corrective measures if needed.*
4. *A thorough study of water level and bank stabilization is essential. However, only that portion of the water required for a park/business complex must be controlled; flood waters may be removed by other means, such as diversion or retention.*
5. *The degree to which air quality and climate are suitable to park/business complex development must be evaluated. The more serious permanent problems and those of temporary influence will need separate solutions.*
6. *Historic site and building redevelopment are important aspects of a complex. Therefore, detailed investigation is needed to identify areas and structures with this potential.*

7. *Because of the importance of landscape beauty, evaluation of the site must include appraisal of on-site and off-site vistas. Consideration of beautification improvements must enter into the appraisal.*

Some cities have many favorable site characteristics while others have few. Not all cities have the special set of favorable characteristics found in San Antonio. Nor is it necessary to have those same ones to build a viable park/-business complex.

The search for studies that would assist in evaluating urban river sites revealed that most work had been done on wild and remote rivers. Craighead and Craighead (1962:2-19) developed a system of classification, inventory and evaluation of non-urban river settings. Whitman (1968:217) identified factors that describe the undisturbed river valley. Leopold (1969) researched Idaho river sites and identified factors that could be used to describe sites. Morisawa, et al. (1969:5) developed inventory techniques for other than the urban setting and Dearing (1968:iii) set up an evaluative system for recreation areas on small streams near cities. Reed (1972) identified factors important on the River Walk in San Antonio but did not attempt to generalize for other areas.

These studies provide background and insight but it became necessary for the researchers of this study to develop their own criteria and organization for evaluation of sites. For example, it was found that it is important that



FIGURE 16.

An attractive observation area gives visitors a chance to view harbor activities in San Diego.

existing development is at a stage where change is still possible. Factors, such as air quality, water level, water quality, waterlife, water depth, bank stability, land forms, historic interest and scenic vistas should be as favorable as possible. These factors are discussed in greater detail in the following sections.

## CHARACTER OF EXISTING DEVELOPMENT

A qualitative and quantitative evaluation of the existing development within the proposed area for a park/business complex is an important element of feasibility.

For some cities, industry dominates the urban waterfront, tending to discourage park/business development. However, industry may change its location, such as in Portland, Oregon, allowing redevelopment of the waterfront. Some industry may be "clean" and of interest to visitors. Other waterfront industry is of low density, allowing open space for park and recreation use.

On navigable waters, the waterfront is often filled with warehouses, docks, wharves and shipping industries. This would seem to preclude a cultural and aesthetic park/business development. Yet, it may provide a most fascinating setting for visitors to spend their time. Jacobs (1961:267) emphasized the importance of such areas as seams rather than borders:

*Waterfront work uses, which are often interesting, should not be blocked off from ordinary view . . . Penetration into working waterfronts need to be right where the work (loading, unloading, docking) goes on to either side, rather than segregated where there is nothing much to see. Boating, boat visiting, fishing and swimming where it is practicable, all help make a seam, instead of a barrier, of that troublesome border between land and water.*

Space for park/business development is being found in New Orleans. Spain has donated money to construct a "Spanish plaza"--a promenade, fountain and landscape plantings offering pleasant views of the Mississippi River and port activities. Renovation of the historic French Market, adjacent to redeveloped Washington-Artillery Park near the French Quarter will include various craft and curio shops, a "voodoo pharmacy" and the "Halle de Cuisine" with cajun food specialties.

Some cities are converting downtown waterfront areas into office complexes (Meyerson and Banfield, 1966:63) and are including park/business complexes that offer restful settings among restaurants, entertainment and sophisticated shopping. Detroit and New York City are creating new apartment complexes with park/business features along their waterfronts. A city should not overlook the potential for a park/business complex merely because some existing development preempts

desirable sites. With creative design, existing structures can be integrated into a new functional plan. If relatively new construction dominates waterfronts and yet has no functional orientation to the water, the chances for a new leisure complex may be very limited. It is often a matter of degree.

Natural and cultural resource factors are especially important in the immediate vicinity of the water areas. They may swing preference toward one out of several alternative sites. They may allow year-round use or may limit use to only a few weeks. In any case, natural and cultural resource factors will have much to do with the planning, construction and maintenance of a park/business complex. Parenzin (1973) found that all 21 of the resource factors he identified were about equally important as revealed by a survey of a panel of over 100 professional designer-planners. The following factors need to be

examined for their influence upon the potential of a park/business complex.

## WATER QUALITY

Certainly, water quality should be as high as possible, preferably good enough to support waterlife. But when contact water sports are excluded and the aesthetic characteristics of water take on greatest importance, it is possible to have a viable park/business complex with water that occasionally contains some turbidity or other impurities. For example, the River Walk Study showed that even though hundreds of thousands of persons visit the River Walk annually and over 40 percent of the visitors rate the water as "dirty" they come anyway and enjoy the experience. Floating debris and trash may present a visual problem--one that usually can be solved without great difficulty.

FIGURE 17.

Water quality is an important consideration in the evaluation of potential park/business sites . . .

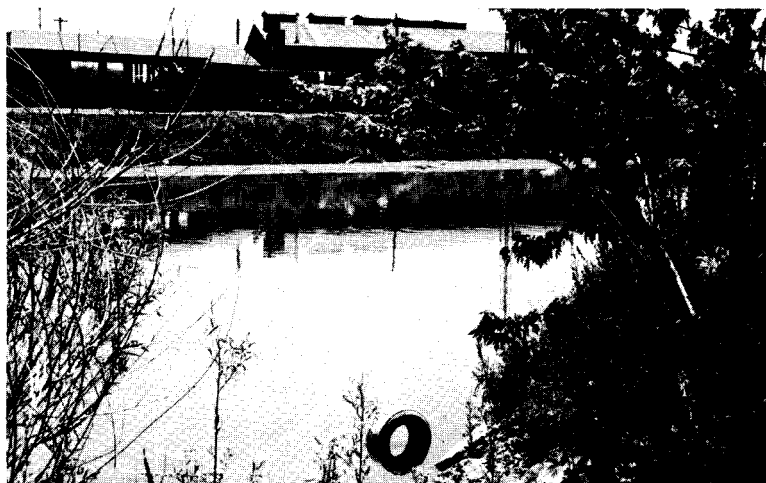
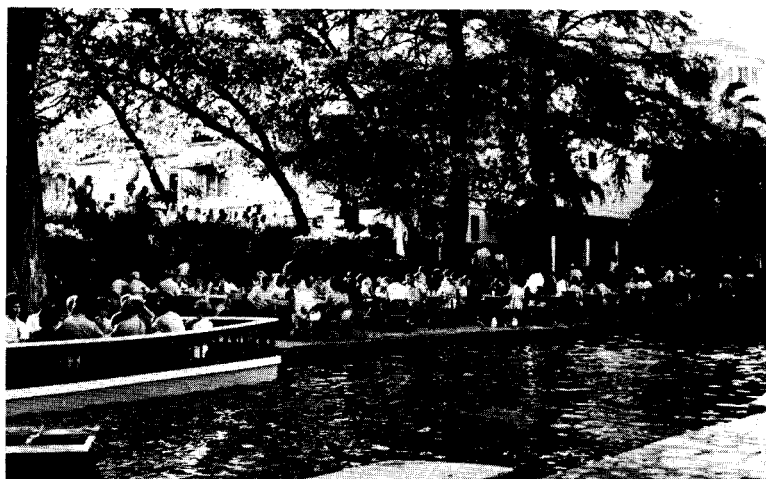


FIGURE 18.

. . . But the River Walk in San Antonio is very popular in spite of occasional water turbidity.





## AIR QUALITY AND CLIMATE

If thousands of visitors are to use a park/business complex, the immediate air quality should be free from noxious ingredients, bad odors and visual pollutants. Fumes and noise from nearby traffic or industrial plants may rule out a site's potential.

Although one may not be able to modify a city's climate, the characteristics of the micro-climate of the site should be assessed. For example, it was found that the improved climate of the deep cut of the river valley in San Antonio had much to do with its desirability as a place of pleasure. The bottom of the cut supported plant materials that could not survive above. Personal comfort was greater both in winter and in summer.

It should be pointed out that the noise of traffic was not objectionable along the River Walk

in spite of the nearness and great number of street bridges. This was also due to the depressed topographic situation of the walk.

## WATER LEVEL FLUCTUATION

As was described in the section on preliminary investigation, the waters for a park/business complex must be controlled. However, this may require special engineering control for only a portion of the city's urban waters. Most cities with flood problems could divert a small and regulated amount of water into a complex even though canals remove the major portion of water.

## WATERLIFE

The abundance of waterlife, both plants and fish, usually indicates high water quality and



FIGURE 19.

The micro-climate created along the San Antonio River allows a variety of vegetation to flourish.



FIGURE 20.

Lying below the street level, the River Walk is also protected from automobile noise and exhaust.

provides an aesthetic advantage. The presence of fish may be aesthetically desirable but the provision of fishing as a recreational attraction may conflict with other major uses, such as strolling the banks. Some kinds of plant growth, such as algae or water hyacinth, may indicate poor water circulation or quality and therefore suggest improvement is in order.

### **WATER DEPTH AND FLOW**

Depth and flow velocity are not of great significance for dominant aesthetic functions. Depth and flow should be great enough to be a positive influence on other water factors, such as quality, algae growth and floating debris. Excessive flow and depth may increase difficulty of handling sight-seeing boats and increase the hazard from drowning. A

river with rapids, cascades or waterfalls may have aesthetic appeal over placid waters. These, however, prevent continuous circulation of sight-seeing boats.

### **BANK STABILITY**

Examination of river bank conditions must be related to the need for water level stabilization. If fluctuation remains a problem, bank stabilization (up to certain flood levels) may preclude many of the functions desired for a park/business complex. Certainly, bank stability must be adequate to prevent erosion. An important part of this examination is evaluation of the aesthetics of bank stabilization--some engineering structures may require modification.

**FIGURE 21.**

Flowing water can contribute variety of sight and sound.



**FIGURE 22.**

Pleasant park-like settings can be developed even if flooding cannot be controlled.



## RIVER VALLEY/OPEN WATERFRONT

Topographic conditions adjacent to a water body have a great influence on the park/business potential. Flat topography provides a much less interesting viewing aspect, whereas extremely high banks increase problems of access. The 30-foot river valley of the San Antonio River was found to be a landscape asset. This topographic form provided an enclosed corridor adding aesthetic cohesiveness to the environment.

River width is an important factor. Rivers more than 100 feet in width usually require design and functional solutions that are limited to one bank. However, rivers from 20 to 50 feet in width create visual and functional corridors that can function from side to side. This factor was found to be a great asset to the River Walk in San Antonio.



Open waterfronts (including rivers wider than 100 feet) do not lend themselves to the corridor development concept. However, an interesting and worthwhile park/business complex is still possible such as has been achieved in Wichita and Seattle.

## SCENIC VISTAS

A search for particularly outstanding vistas should be made although it may take a trained eye to discern the potential, in a site now filled with trash and underbrush. After all, the aesthetic qualities of water resource are probably of greatest consequence. Every effort must be made to discover prime vistas and to assure their protection.

Vistas from the river level upward may be quite different from those looking downward from river banks, bridges or high buildings.

FIGURE 23.

Narrow rivers have the advantage of easy bridging and can produce a "corridor effect."

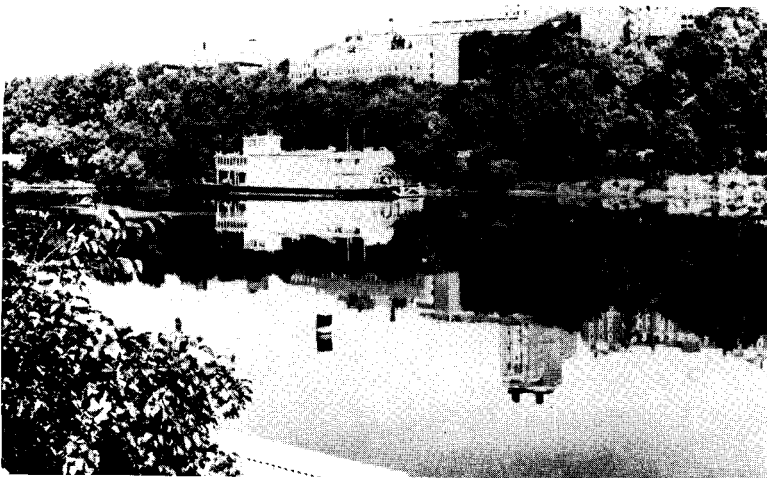


FIGURE 24.

Cities with wide rivers have potential for park/business development but at a different design scale.

Each may be equally important from a future visitor's point of view.

Even those sites without scenic vistas today may have potential when properly designed and planted. Therefore, sites that may now rate low should not be discarded for low scenic appeal. Landscape practices now include the successful moving of large trees, shrubs and boulders, allowing the creation of new landscape beauty even in a naturalistic design motif.

Discordant features within vistas are another problem. Garnish billboards, power plants, dilapidated buildings and other undesirable objects located on surrounding property are difficult to control because they probably will be outside the park/business complex boundaries. Only by means of patient effort toward zoning controls and influence upon the owners can improvement be made. However, this can be done, as is demonstrated by the vigilance of the Outdoor Circle in eliminating and preventing further abuse by billboards in Hawaii.

FIGURE 25.

Urban waters often provide the only source of distant vistas within a congested central city.



FIGURE 26.

Controlling vistas outside of the development area may be necessary to preserve aesthetic quality.



## HISTORICAL INTEREST

Because many cities were founded on rivers and lakes, the oldest sites and structures are likely to be found there. Such sites and structures are slowly being recognized as having great potential from several standpoints. Therefore, they may become very important elements in a park/business complex associated with water.

Several cities are renovating, restoring and rebuilding old structures purely for their historic value. Churches, public building, hotels and other buildings reflect the architecture and functional needs of the period. Some cities still have examples of a colonial, special ethnic or frontier influence. Others have excellent examples of Victorian architecture. Some cities and buildings are of national significance, demanding special protection and restorative measures. Many of these are open to the public as museums.

Other business districts are being remodeled and rebuilt, not as museums, but as business ventures with a flair for the nostalgic. The architectural and site development reflects an earlier architectural idiom but strict replication or restoration are less essential than conversion to a viable business or residential use.

Some downtown areas of historic significance, such as in Galveston and New Orleans, are being restored on a "facade" basis. In order to maintain the outward appearance of the original architecture, the new owner must restore and maintain the original facade. However, he may convert the interior to his liking--a bank to a restaurant, for example.

The survey of a potential site for a park/business complex should include an intensive investigation of historic sites and buildings. When restored, redeveloped or revitalized, they offer great potential for all visitors, local and outside. Building restoration has been a vital part of the riverfront development and success in both San Antonio and Sacramento.

## HOUSTON EXAMPLE

One portion of this study was devoted to an experiment on Buffalo Bayou, Houston, using site factor analysis developed by Parenzin (1973). The analysis consisted of two phases: 1) evaluation of location and flood control and 2) evaluation of physical factors. Phase I

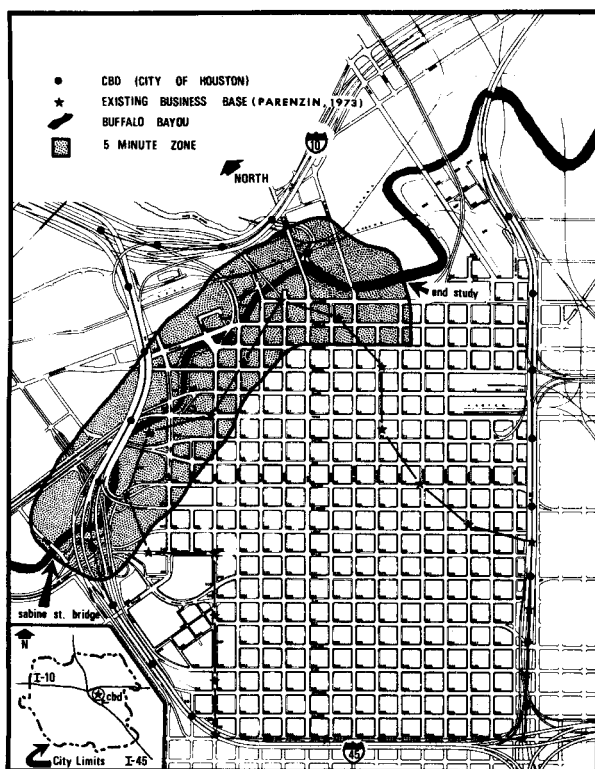


FIGURE 27.

Map showing the study area of Buffalo Bayou in downtown Houston.

study showed that the Buffalo Bayou was located within a desirable location of five-minute walking distance from the central business district (see Figure 27). However, it was found to be subject to great water-level fluctuation even though several flood-control methods have been employed.

Phase II study consisted of a physical site evaluation of factors that evolved from an initial trial list by Parenzin. The trial list was based upon observation and study of sample plans. This list was then modified by obtaining consensus from a selected panel of 100 professional planners and designers. The following list resulted from this investigation.

Surrounding land uses	Floating material
Floodplain width	Trash
River valley depth	River valley flora
Historical interest	Vistas
Waterlife (plant)	River depth
Waterlife (animal)	River width
River valley fauna	Discordant features
Algae	Turbidity
Bank stability	Water fluctuation
Diversity	Odors and irritants
Noise	

The panel response indicated that all 21 factors were of approximately equal weight. Therefore, in order to quantify the evaluation, an arbitrary maximum of five points each was assigned to the factors. A site situation most "ideal" would obtain a total score of 105 points (21 x 5).

Parenzin scored the Buffalo Bayou at 100-foot intervals for approximately 8000 feet--that portion of the Bayou best located for potential complex development (see Figure 28). The results are shown in Figure 34 (Parenzin, 1973:89). Clearly, the entire Bayou did not rate very high (maximum, 67.0), mainly because of negative factors such as excessive water fluctuation, high turbidity, relatively high noise level, lack of river valley fauna and general lack of historical interest. The segments of the Bayou at either end--near Allen Parkway on the west and near N. San Jacinto Street on the east--showed greatest potential.

Further details regarding the use of this approach can be found in Parenzin's study (1973). It is a documentation of one approach to quantifying site potential for a park/business development of urban water resources.

FIGURE 28.

Diagram of Buffalo Bayou showing the segments used for evaluation.

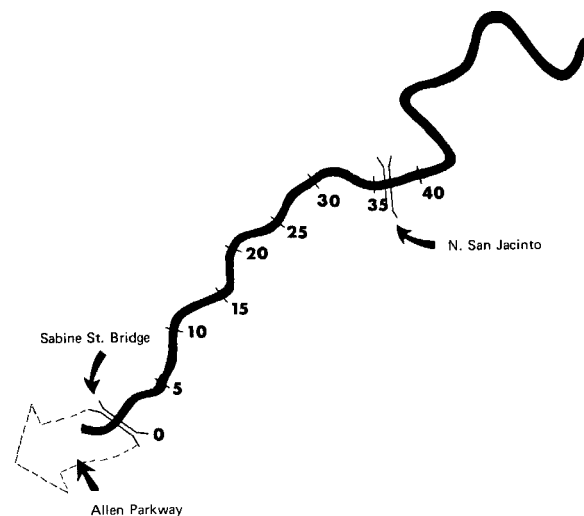




FIGURE 29.

Expressway columns detract from the park/business potential of several segments of Buffalo Bayou (Segments 9 & 10).



FIGURE 30.

Presently there is no linkage between the convention center and Buffalo Bayou (Segments 17-19).

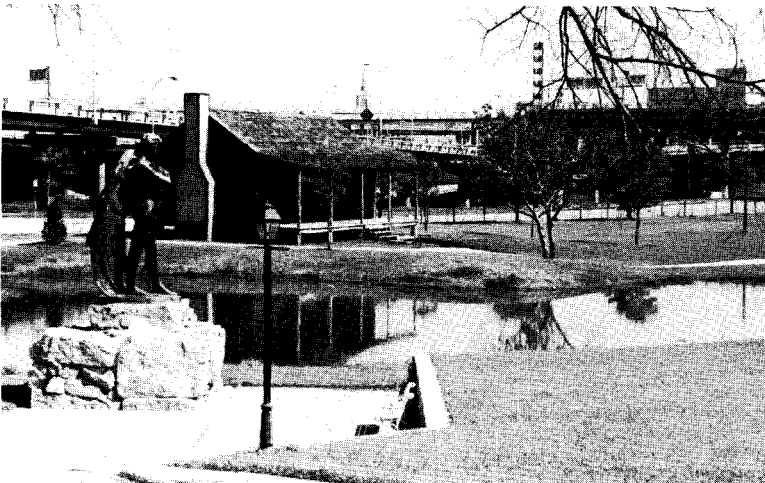


FIGURE 31.

Nearby Sam Houston Park has a small pond, but there is no linkage between the park and the bayou.



FIGURE 32.

The lower portion of the bayou rated fairly high because of the natural setting and absence of discordant features (Segments 36-40).

FIGURE 33.

With skillful design and redevelopment, areas such as this (Segment 26) could have park/-business potential.

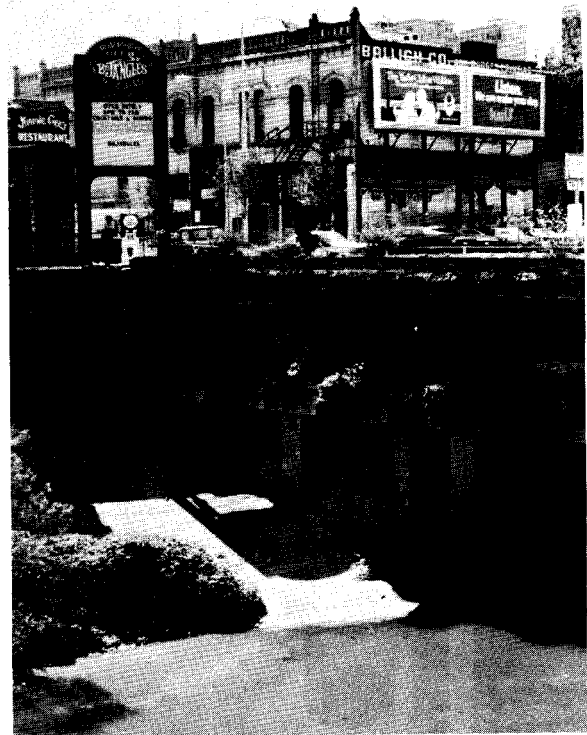
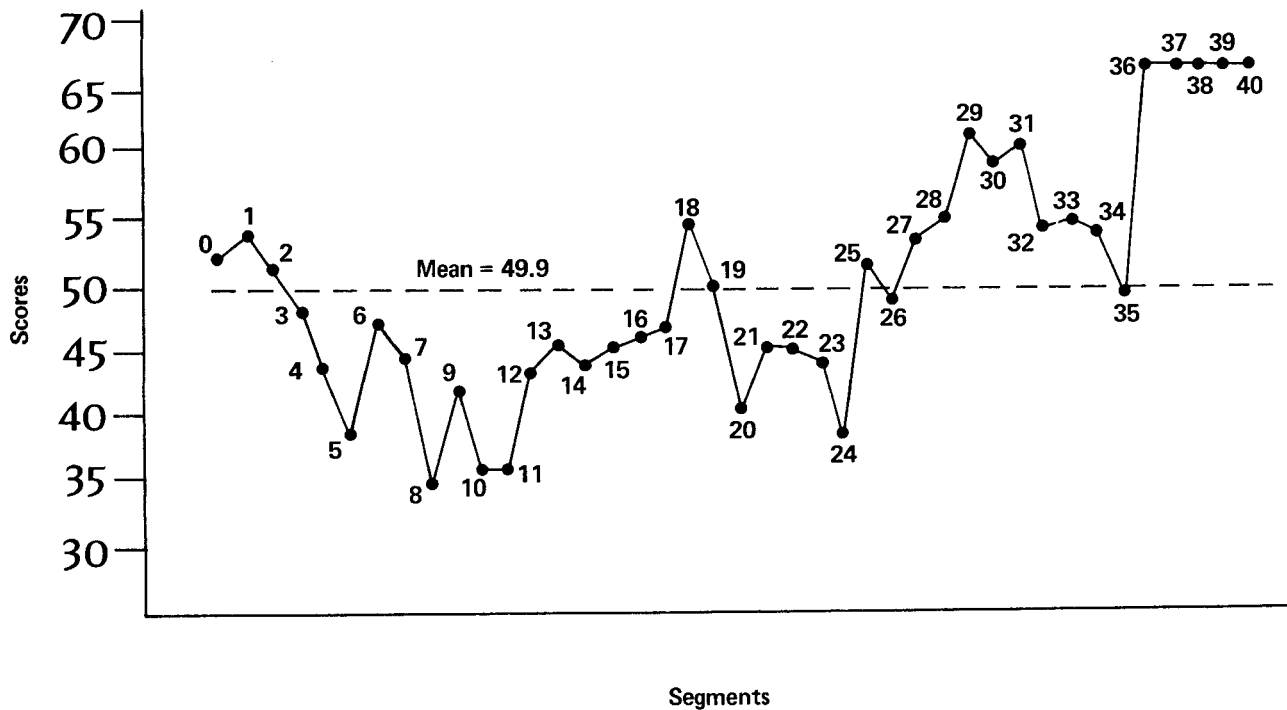
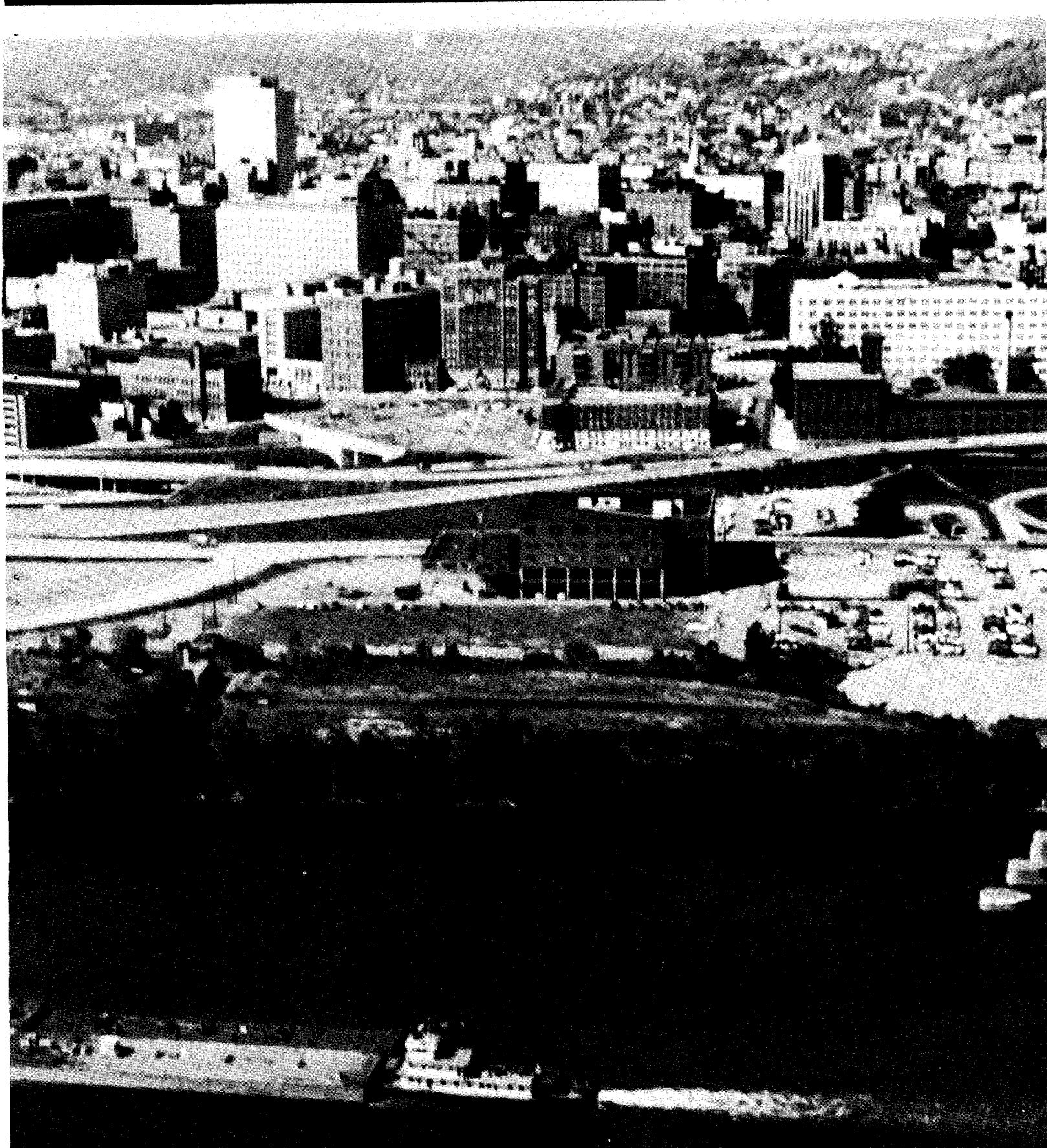


FIGURE 34.

Graph of the scores of each segment of Buffalo Bayou evaluated for park/business potential.







## 5. INFLUENTIAL FACTORS

### CONCLUSIONS

- 1. High land price may deter portions of development of a park/business complex but it is likely that the majority of the complex can be developed by existing owners.*
- 2. An important step is the assessment of the costs of rendering the site usable for building a park/business complex.*
- 3. The problem of land assemblage depends upon the interests and ability of existing land owners to enter into park/-business complex development. Owner policies can have a major influence on future changes in land use.*
- 4. Three types of visitors create the need for special transportation investigation: those doing business or living near area, other local citizens and outside visitors (tourists). Investigation for a proposed park/business complex may support other studies toward integrating the several travel modes of the city.*
- 5. The final form of transportation at the attraction must be on foot. Pedestrian malls and walks need ample space in which to function. Minibus, monorail and other forms of transportation linkage may be needed for a park/business complex.*
- 6. Some forms of local transportation may become attractions. Old forms such as steamboat, ferry or interurban railway, may be reactivated to serve both the people-movement and attraction functions.*

In addition to site characteristics, other important factors can have direct bearing on the potential for a city's park/business development. Studies of these factors in reasonable depth should be made prior to detailed planning. Some of the more important influencing factors were found to be: land price, development costs, land assemblage, owner policies, transportation and access, external influences and land use controls.

### LAND PRICE

Both public and private development is influenced by land price and, unfortunately, as urban water resources become more desirable, the price goes up. Even though much of the urban waterfront in many cities is in a raw and undeveloped state, its escalating price is reflecting the current increase in demand.

Because of rising land prices, both public and private interests tend to select less-than-optimum sites, less-than-fee simple rights and sometimes to abort projects entirely. Certainly, it sharpens the need for carefully prepared estimates of costs and returns for private property uses. At the same time, public agencies must prepare even stronger and more detailed justification for the purchase of high-priced property. Because of time delay and other factors, city governments generally pay higher prices for land than other purchasers.

It should be emphasized that the creation of a park/business complex may not require great amounts of land purchase. Existing owners may be interested and may have the ability to convert their present holdings to

new park/business uses. It certainly is not necessary for such a complex to be under one ownership--in fact, this may produce a more sterile and narrowly-defined complex. Therefore, land price may not be a relevant issue.

## **DEVELOPMENT COSTS**

Land varies in its ability to support new construction. Some lands require extensive renovation--even razing buildings. Existing land pricing may not reflect the true costs to the developer who, in turn, may have to spend great amounts in preparing the site.

Does the site contain underutilized or undeveloped structures which can be renovated and put into new uses? What is the physical condition of the existent structures? Are they worth saving? Are some of the structures of historic or cultural significance?

The costs of providing the property with adequate infrastructure--water supply, sewage disposal and access--are also part of development. Are these costs to be borne by public agencies or the private developers?

To what extent do contiguous property uses influence the costs of development? High quality adjacent uses may provide hidden price advantages whereas the opposite may demand the purchase of buffer properties in order to improve and control them.

## **LAND ASSEMBLAGE**

Past patterns of land subdivision, even though established many years ago, set the present land ownership patterns. The mosaic of property boundaries may make land assemblage very easy or extremely difficult.

A park/business complex does require a reasonable amount of downtown land area. This area, if it is to be planned and developed to function well, must be considered in its entirety. This means that a great many property owners, both private and public, may be involved.

However, this does not require single ownership and control. It is possible that existing property owners can agree upon common goals and can develop their properties in ways that can produce a single theme and a single complex. Even so, some time and cost for such negotiation and litigation will be required.

## **OWNER POLICIES**

One of the greatest obstacles to park/business development is the lack of agreement upon common overall goals at the same time that individual property rights and policies are retained. Before redevelopment, each property owner has certain interests which tend to dictate potential uses of the land. Some lands and structures can be easily adapted to new uses while others are more difficult. The extent of flexibility of individual land owner policy can make a great deal of difference.

For example, a proprietor whose business is oriented toward a street opposite a waterfront may or may not look favorably toward remodeling his structure or using undeveloped land to include a restaurant or other business oriented to the water. If, however, he is disinterested in the park/business concept, he may make no changes in his land use policy--presenting a major obstacle to the development of an overall complex.

FIGURE 35.

Even though the main function of this library is oriented to a nearby street, the river facade is linked with the San Antonio River Walk.

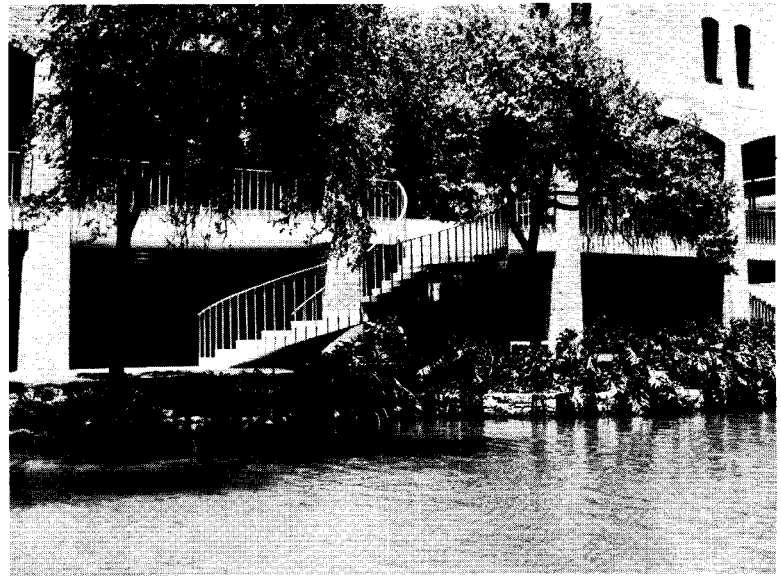


FIGURE 36.

The river-side of existing structures can be remodeled to provide waterfront access.

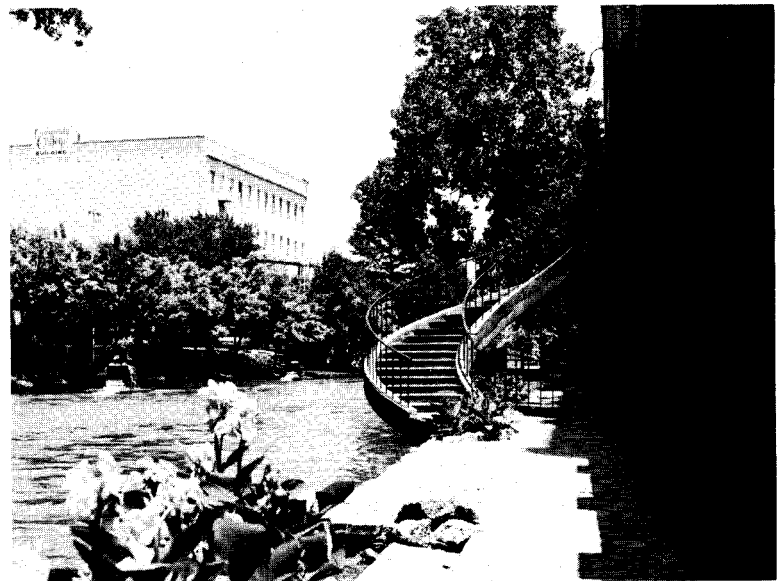


FIGURE 37.

The owner of this building adapted his restaurant to provide an orientation to the river.



## TRANSPORTATION AND ACCESS

One site may be favored over another if access is better. Modification of present streets or building new ones may be necessary to provide adequate access to a park/business complex. Transportation and access for three market groups of users need to be considered.

Those individuals living or doing business within walking distance have special pedestrian needs. Walks from housing within or nearby a complex should be reasonably direct, attractive and safe. As downtown improves in aesthetic quality and standards of service, walks will become increasingly important. New housing nearby should consider access to a complex when developing its plans. Night use, winter use and use in inclement weather need to be considered in the design of access.

Local citizens who wish to use a central urban park/business complex have special needs. If private car access is assumed, all parts of the system must work equally well. For example, it was found in San Antonio that traffic congestion was not a deterrent but that pricing of parking downtown was. If mass transit (rail, bus) is to be used, the location of stops and how well they serve the complex is very important.

Outside visitors may have an entirely different set of access problems. Any feasibility of a park/business complex must include evaluation of entrance streets, highways, expressways and airports.

*Tourism is inseparable from and dependent upon transportation. And, of course, the quality of the transportation system has an immediate impact on tourism, the number of travelers, and the travel experience itself (NTRRC, 1973:87).*

The tourist's travel perceptions, unlike those of the natives, are filled with anticipation. Therefore, the visual travel corridors are as important as the physical travel ways. Aesthetic considerations are as valuable as traffic flow and both are elements of the transportation study.

Although most access problems can be solved by new design and construction, all changes come at a cost and some proposals may be ill-conceived. In New Orleans, for example, an expressway was designed to plow through the very popular and historically important French Quarter separating it from the Mississippi River. Only by vigilant effort was this prevented. The labeling of exits from expressways and local streets now offers adequate access.

Cities that have begun to integrate their transportation modes to serve downtown have better chances of success for a park/business complex in the core. Too frequently, the complicated mass of unrelated modes heightens resistance to travel downtown (NTRRC, 1973:94-94). Interstate exits sometimes link with air terminals but bus depots, taxi stands or mass transit terminals are seldom grouped together at a transportation cluster. "A transportation cluster, designed to provide the psychological function of community welcome, can set the tone for the entire pleasure experience thereafter" (Gunn, 1972:133). Examination of these travel linkage problems is a needed part of early study.

Examination of the downtown core's transportation problems for a park/business complex may assist other approaches to the same problems. Downtown businessmen in some cities are recognizing that street parking adjacent to the business is too consuming of land area and adds to the inconvenience by forcing shoppers to make many moves during one downtown trip. Minibus, monorail and

other mass-handling mechanisms are being tried. In addition, an increasing number of pedestrian walks and malls are proving their value. The Vieux Carre of New Orleans has already reduced pollution and congestion by blocking off streets and depending mostly on pedestrian travel, assisted by a minibus route (Lepoma, 1974). Atlanta architect John Portman divides pedestrian from traffic movement by placing it on a separate level (Martin, 1969:32).

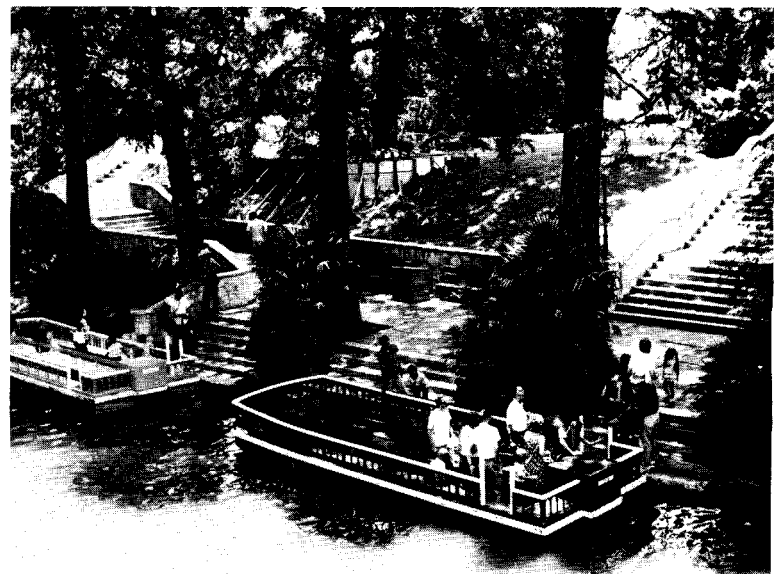
Experience is showing that waterfronts generally can support a much higher social and economic function than car parking. Car parking lots may be needed downtown but certainly their functions do not depend upon the amenities of waterfronts. Waterfronts are preempted by parking mainly when waterfront land is held in low regard and has been abused, resulting in a relatively low price. Temporary parking lots may provide a holding action, preventing major structural development until plans for park/business development can be initiated.

The study of transportation may also reveal the opportunity of utilizing abandoned rail systems. "Interurban" electric rail lines connecting downtown with satellite and suburban communities popular in the early 1900's generally, have been abandoned. However, frequently the right-of-way and sometimes the track still remain. As an example, Galveston is studying the feasibility of reactivating an old railway connection with Houston.

Renovated rail systems may become attractions as well as means of transportation. A classic example is the trolley car system of San Francisco. Texas Export Railroad's weekend runs from Bridgeport to Fort Richardson State Park at Jacksboro is a more recent example (*Texas Metro*, 1973:19). Water transportation, using steamboat, ferries, excursion barges, sight-seeing launches, can also serve both a people-moving function and a cultural attraction function. Study of the potential for a park/business complex may show the merits of such systems.

FIGURE 38.

Circulation within the park/business complex can be an attraction for tourists as well as transportation for local citizens.



## EXTERNAL INFLUENCES

The fate of the park/business complex may be greatly influenced by outside factors.

Upstream influences upon the water have a great bearing on the water quality within the complex. Agricultural, street, industrial runoff or outfalls can produce pollutants detrimental to the success of the complex.

The visual and atmospheric pollutants from contiguous properties are equally critical. While no one can completely control all neighboring uses, the extent to which these uses are neutral, beneficial or detrimental must be assessed.

## LAND USE CONTROLS

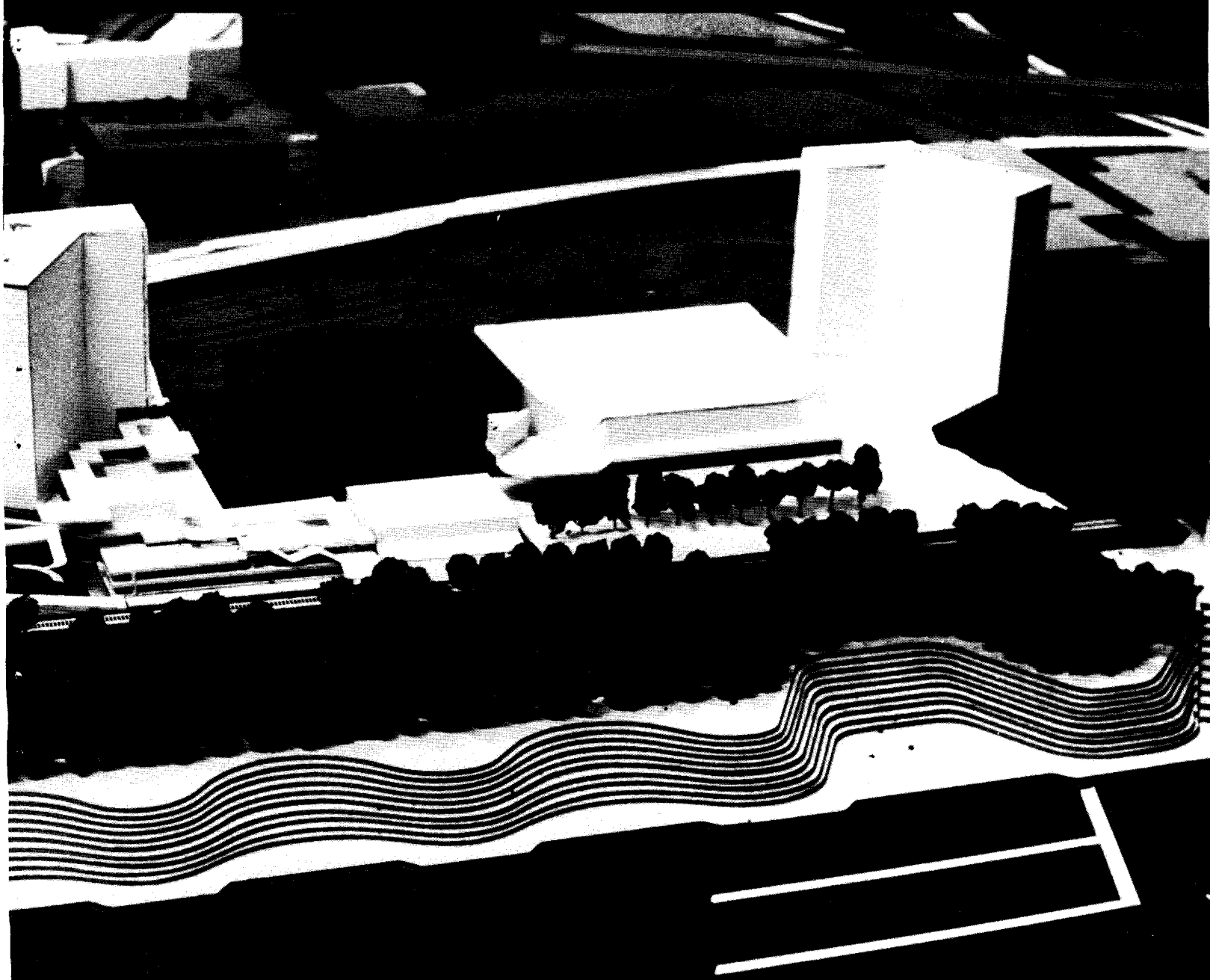
The original intent of zoning was to protect high quality land use. To achieve certain social goals, society agrees to place controls on land use rather than allowing uses to freely follow the market or individual whim. The

tool has been abused so widely that today it often poses a threat to development. Archaic ordinances may reflect older concepts of urban water use that actually prohibit development of park/business complex.

For example, waterfront land now occupied by an abandoned railroad may be zoned industrial whereas today it may have great potential for a park/business complex. A thorough examination of all controls is needed.

Controls can assist the planner in creating concepts for a park/business complex. Quantitative controls--zoning, deed restrictions, and, in some cases, property taxes--specify the type of land use but set no standards for that use. Qualitative controls--pollution standards, building codes, and subdivision controls--are concerned with the effects of land use (Schmedemann, et al., 1972:3).

Zoning is not the only tool to investigate. Others, such as ownership policy, sale-lease-back, easement and sometimes taxation, can be used to control both quantitative and qualitative uses of lands.





## 6. PLANNING

### CONCLUSIONS

- 1. The planning of a park/business complex must consider both social and economic objectives. While its economic impact may be great, the social impact--a place of rest, beauty and entertainment--may be even greater.*
- 2. Trade-offs, deriving from a park/business complex versus present uses, vary with the extent of redevelopment. The more severe the reconstruction, the more severe will be consequences of trade-offs.*
- 3. Financial planning is as critical as physical planning and requires both careful investigation and skillful management of funds.*
- 4. The planning actors are many, varied and critical to success, planning for a park/business urban water complex is complicated, demanding team action by many specialists.*
- 5. The complex should be designed to fit an overall long-range concept but also to allow development in a logical sequence of steps.*
- 6. By examining the given conditions, creating new park/business functional concepts and developing new plan alternatives, city officials and the citizenry can act upon desired changes. Four models are presented here.*
- 7. Although city physical, political and social conditions vary, some general principles of design of a park/business complex were derived from this study.*

The intent of this entire report is to assist in planning. Planning, however, consists of two dimensions--a series of specific batch processes and a continuing process. For park/business complex planning, the term batch process refers to specific projects that have site and building specifications and plans and can be built and managed. In this sense, each project has a beginning and an end--an end when the construction is complete. However, planning is now considered to be much more than this; it is on a time continuum. Each year and year after year, as social and economic conditions change, new assessments important to planning need to be made.

The following discussion of planning is designed to assist cities in their approach to planning in both a batch and a continuing sense. Some of the more important aspects of planning are: economic objectives, social objectives, trade-offs, financial planning, the actors, project analysis and staging. This chapter is concluded with a presentation of four conceptual models and a listing of design principles for this special land use.

### ECONOMIC OBJECTIVES

Because of urban core decay and the resulting economic loss, most cities view all downtown redevelopment proposals with economic objectives in mind. More employment, higher incomes and higher capitalization are viewed as desirable objectives for civic improvement. Any antidote to the exodus from downtown to the suburbs is looked upon as economically desirable. Increasing both tourist and local



FIGURE 39.

Economic activity has been stimulated in downtown Wichita by waterfront development.

trade appear to be compatible solutions.

Tourist dollars are export dollars. Therefore, they enhance the city's balance of trade. Furthermore tourist expenditures, because of their diversity and service dependency, result in a relatively high multiplier influence upon a community. Money spent on attractions, housing and food in turn goes for wages, salaries, and taxes that remain largely in the local community (Lundberg, 1972:133).

A recent study by the Urban Land Institute states that downtown renewal activities stimulates interests in central city living and that "the key to profitable downtown retailing is capturing the business of people who live downtown, who work there, and visitors attending conventions, business meetings, sporting events, theatrical performances and other gatherings" (*U. S. News and World Report*, 1973a:60). Former Philadelphia planner Edmund N. Bacon states that cities will have a better chance of drawing people downtown by packing the attractions there.

Kottis (1972:169) reaches a similar conclusion in a study of the factors responsible for the decline of the central business district. Large metropolitan growth stimulated by manufacturing, which usually is not located downtown, reduces the demand for downtown professional and retail services. "The local government could try to attract certain service activities into the area instead of allowing the manufacturing sector to expand at the expense of the service sector." The most ambitious current downtown renewal projects are implementing these principles and are including plans for a mixture of tourist, residential, office and commercial facilities.

The River Walk Study showed the importance of the mix of both tourists and residents attracted to the River Walk area. An economic study in the same area (Trock and Lacewell, 1973) found that the economic impact of these users was stratified according to location and type of activity. The highest impact of river-oriented sales was greatest close to the River Walk and for those activities most closely re-



FIGURE 40.

Waterfront cafes and shops are attracting visitors and residents to downtown Seattle.

FIGURE 41.

A waterfront park-like setting can provide for both private relaxation and social interaction.



lated to tourist type sales--arts, crafts, entertainment, food, lodging. All of the businesses within several blocks of the River Walk reported a beneficial effect upon their receipts.

The Trock and Lacewell study also reported that the most important quantitative variable affecting expenditures was the time spent in the area, with expenditures increasing approximately \$0.82 for each additional hour. Visitors who had traveled farthest and who purchased food along with other goods and services tended to spend more money in the vicinity of the River Walk.

The revitalization of downtown also increases input to the public sector through increased tax revenues. For example, the various enterprises of Atlanta's Peachtree Center alone paid more than one million dollars in city taxes (Martin, 1969:30).

## SOCIAL OBJECTIVES

Cities are made up of more than economics, important as they are. Cities have characteristics much like human beings that make them interesting, pleasant, enriching, beautiful, restful and exciting. These qualities add much to tourists' interest in visiting cities and to residents' feelings of well-being within a locality. The decay of social activity in downtown, however, has been both cause and effect of the demise of the older urban core

park. "Illconceived, abused, misunderstood, the park concept is atrophying today because it remains static within a rapidly shifting urban crucible" (French, 1973:4). It would now appear that certain social objectives must be very important to the park/-business concept of downtown.

Urban residents and visitors appreciate areas of rest and relaxation, particularly downtown where congestion and activity are most acute. A park/business complex offers one opportunity of reaching this objective. For some, rest may be withdrawal; for others, it may be social interaction with friends, fellow-workers or perhaps other downtown visitors. For example, in spite of hundreds of thousands of visitors to the River Walk, some were able to find solitude because of the special physical design and setting. Cheek (1972:29) found that there is more interaction between strangers in parks than in other locations. Yeates and Garner (1971:108) found that tourist and resort cities generate more interaction than other types of urban areas having the same population.

The search for beauty as a social goal is as vital to life now as ever. Parks, landscape malls, gardens and open waters--especially when mixed with artful architecture--provide elements of beauty appreciated by those who visit, work or live downtown. Fountains, shade and open corridors provide cooling on

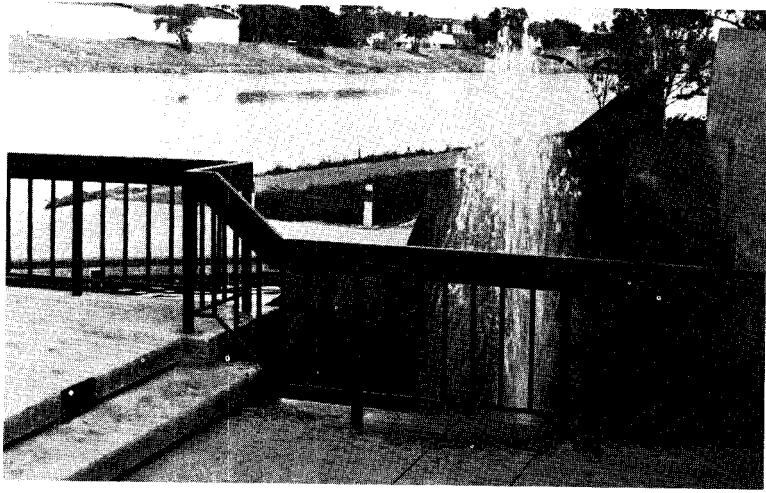


FIGURE 42.

A combination of natural water flow and man-made fountains adds to the pleasure of visiting the Arkansas River in Wichita.

hot days; building enclosures, bright flowers and sun-lit spaces offer warm and pleasant settings on cooler days. In addition to natural plant and land forms, outdoor sculpture can produce effects that are bold, delicate, playful, dramatic and a variety of other responses.

The desire by American society to preserve and protect bits of its heritage is becoming very evident today. For most cities, the oldest area (most likely to contain historic sites, buildings and artifacts) is downtown. A prime objective of an urban waterfront park/business complex could be to identify, protect and reconstruct important landmarks. Museums are costly, however, and a city can afford only a limited number. The basic character and meaning of many old buildings can be retained and still serve modern needs by means of artful redesign. Old Sacramento is a lively example.

An urban park/business complex can serve another social objective--that of pride of place. At least this was the finding of the study of the San Antonio citizens. Although

the mobile American may not be as loyal to home as the ancients, territoriality is still important to him. At one time, downtown represented the heart, the focus and the place for the best of all cultural activities. Although conditions have changed, downtown for many cities again offers this opportunity. It would appear that city-hate could very well be replaced by city-love if the right environment could be created. Hostilities and animosities may be defused with the right park/business complex in the urban core. "The love of one another is linked to love of place" (Shepard, 1967:33).

One social objective that has been increasingly difficult to accomplish downtown is that of safety--freedom from bodily harm and theft. Increasingly, the urban core has gained the reputation of conflict, unrest and threat to human security, especially for outside visitors. This factor alone can negate all the favorable characteristics of an urban park/business complex, but this can be changed. The introduction in 1968 of "park rangers" to the River Walk of San Antonio has virtually eliminated crime and disorder along the walk. The

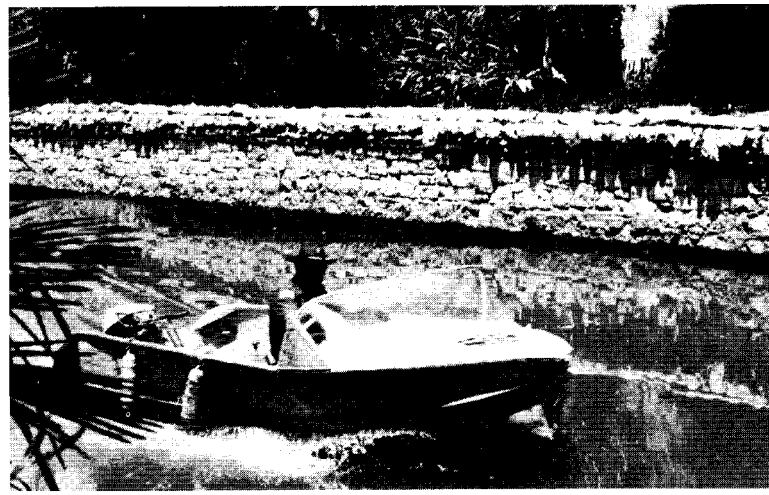


FIGURE 43.

The renovation of old structures in downtown Sacramento demonstrates that urban renewal can include the use of existing buildings.

FIGURE 44.

The presence of park rangers provides River Walk visitors with a feeling of security.



rangers patrol both on foot and by boat and offer information and guidance as well as control.

### TRADE-OFFS

A park/business complex may be in direct competition with other uses in the downtown area. In most cities today, this may not be a serious problem because the land may be open, undeveloped or in only temporary use. Even so, the collective policies of all the landowners and their intended future uses of the land must be considered alongside the potential for a park/business complex.

The trade-off of land use--park/business versus present use--becomes increasingly serious as present landowners feel threatened. The extent of this threat depends greatly on the plans for the new park/business complex. Those plans that demand wholesale reconstruction pose the greatest threat. The experience of several cities shows, however, that modification and readjustment is very feasible, sometimes offering little disturbance to present primary functions. For example, in those instances where a parks department already owns the waterfront and the "back land" of present structures of other owners is used merely for waste disposal, temporary storage or serves no business function at all, the trade-off of a new park/business development poses little threat. It may even provide a new economic input to the present owners.

A park/business complex must represent the superior use from both a social and economic standpoint or it will not become a viable entity. Experience is beginning to show that both individual property owners and the city in general do gain much by accepting a park/business complex rather than a scatter of other uses or general abuse of the urban waterfront. At least, this is dramatically demonstrated in the city of San Antonio (Garner and Shih, 1973:21).

### FINANCIAL PLANNING

Planning the financial aspects of a park/business complex requires a great deal of careful analysis. Although many sources of funds may be available, financing remains a major obstacle for implementing plans.

Because a park/business complex includes public park land areas, federal and state funding sources are possible. Several programs are specifically set up to preserve open space, beautify urban areas and acquire and develop parks and playgrounds in cities. Other grants are available to preserve historic buildings. Some revenue sharing funds are available for urban redevelopment. The future of the HUD New Communities Act of 1970 is uncertain. During the past few years, this program has provided federal guarantees on loans to the private developers of qualified "new towns". One type of new town, the "town-in-town",



FIGURE 45.

A park/business development can make use of a variety of federal and local sources of funding.

can play a vital role in developing an urban water park/business complex.

Small cities and rural communities planning to develop their urban water resources may be able to get special federal financial assistance. Some federal programs are designed to stimulate economic development in rural regions of the United States.

Urban river development funding may come from other sources, such as individuals, foundations and non-profit organizations. For example, Endowment of the Arts has funded an "Edge Study" of the Mississippi River in New Orleans. This will assist in providing information on waterfront development.

Portions of a park/business complex may receive adequate funding from private sources. For example, Detroit's 500-million dollar Renaissance Center is being privately supported. Ford is contributing \$6 million; General Motors, \$6 million; Chrysler, \$5 million; and American Motors, \$500,000 (*U. S. News and World Report*, 1973b:74).

Because funds are available from so many different agencies and for so many different types of programs, it is extremely important for planners to coordinate with state, federal and private sources. Many states and cities have agencies whose prime function is to locate fund sources.

Cooperation and collaboration on planning can take place at the financing level. For example, the City Planning Commission of New Orleans has agreed to give a real estate developer 3.7 acres of streets to allow him to construct a complex including a hotel, office building and apartments near the Mississippi River. In return the city will receive 1.7 acres of land that ties in with a proposed pedestrian mall and Italian "piazza". Both of these sites can then be linked to other projects along the waterfront (*New Orleans States Item*, 1973).

Different funding sources may be tapped for different phases of project work. Special funds may be used for site analysis, data collection and planning whereas others are available specifically for development or operation.

A redevelopment concept, as applied in California, relies on state legislation enabling cities to purchase property, redevelop that property and then resell or lease the property at a profit. Both Sacramento and San Diego are utilizing this concept in waterfront related development. This legislation allows a city to avoid a general referendum bond issue or a budgeted capital investment improvement program, both of which are lengthy and are burdened with uncertainty.

The best planning will come from the best coordination of financial sources for carrying on the entire park/business project from prelimi-

nary investigation through operation and maintenance.

## THE ACTORS

Most existing planning activities for urban-core waterfront development for park/business use have been generated within planning departments with some support from private consultants. In spite of the fact that many of the proposals were primarily park oriented, parks departments generally showed limited input to the planning process.

Most effective contributions from private consultants were generated by working in close cooperation with planning departments on a constructive basis. When private consultants contribute planning efforts on a volunteer basis, there was a tendency for these plans to not be implemented. Without some type of city commitment, such as funds being allocated to planning, land acquisition or development, these waterfront development proposals seemed to die an early death.

During the planning stage the most positive support usually came from the administrators of the planning department. This person is in a key position at this point as he often has a great deal of influence over the allocation of planning department resources. He also exerts some control over what goes forward from the department for site consideration.

Many communities are now involving affected citizen groups in the planning process. San Jose and Seattle have both formulated citizen advisory groups to work closely with planners. This process may result in a development more sensitive to local needs and definitely makes the local community feel more involved.

Ideally, citizen advisory groups, politicians and community decision-makers should have already formulated a precise set of goals and objectives to guide the planners. However, if they have not, the planners should include these groups as planning actors.

The planning process must include a wide representation of skills, professions and interests through team action. In addition to the lay actors--city planners, funding agents, citizen groups--specialized inputs will be needed at various stages. It may be necessary to involve conservationists, land planners, hydrologists and engineers at the very start for preliminary investigation. Specialists in transportation, marketing, land use controls, law and historical restoration may be needed as plans are being developed. Investigations into human behavior, safety, taxation, landscape architecture, architecture and housing may require special study inputs. A park/business development in the urban core demands thorough and competent work from a variety of actors if it is to be successful.

## PROJECT ANALYSIS AND STAGING

Before physical plans and strategies for development are established, an analysis of the results of phases I and II is not only necessary but should be publicized. Heavily-illustrated documents that describe the results of the preliminary investigation, study of motivating forces, the site and the influencing factors provide a valuable foundation for both physical and program planning.

Review of documents from cities that have attempted to do this reveals many pitfalls. Sometimes, the agency or organization issuing the report demands its own bias in all facts and ideas--a conservation group places great

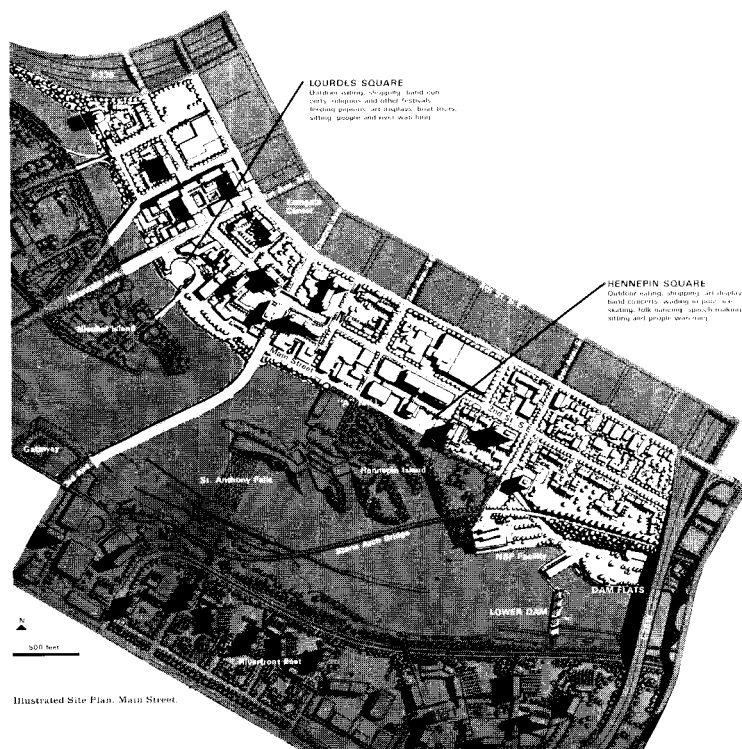


FIGURE 46.

An illustration from *Mississippi/Minneapolis* shows that a well-illustrated report can provide the base for further development.

stress on environmental degradation; developers over-emphasize obstacles to building. Some reports by designers provide ample illustrations of ideas but few facts. Some reports by economists overburden the reader with statistics while drawing no conclusions.

Meaningful statements, such as the following from Minneapolis's analysis, "On-Water Recreation," can be very helpful.

*Notable differences exist between boating on rivers and boating on lakes. Sailing, for instance, is not well suited to rivers, particularly in such areas as the Minneapolis riverfront, where the narrow channel and impediments like bridges and dams exist. Nor is water-skiing well-adapted here where the river traffic and the current are hazardous and where lakes are so plentiful. Also, although it depends greatly on the size and character of the river or lake, smaller recreational craft are often somewhat better suited to lake use and larger ones to the rivers (Mississippi/Minneapolis, 1972:18)*

Conclusions should include statements of both opportunity and limitations.

For example, conclusions regarding proposed development for Expo'74 in Spokane (Spokane World Exposition, 1972:99) include some that are positive:

*It had been conjectured that because of the high costs associated with the development of the Falls Area aspect of the Riverfront Development Program, its implementation would not be feasible for many years. The proposed Expo '74 program, which has attracted both state and federal funding, appears to be the vehicle by which this area will be developed immediately.*

*Ecological education to both visitors and the local community will be considerable.*

At the same time, there are some negative conclusions:

*Potential adverse effects will be felt by business owners and tenants within the Expo site and those on the periphery who need to relocate either because of con-*



*struction on the site or redevelopment programs in the vicinity.*

Too good is sometimes too much. A complicated plan that includes the ideal and maximum development may be a necessary document but may defeat all chances of fruition if presented whole to the public. The image of a too-costly and too-ambitious an undertaking may overwhelm the public--not because it truly is beyond their means but because it would appear so. Furthermore, creating a plan that contains staging is realistic from an implementation standpoint, allowing for shifts in priorities over a period of years.

Staging does demand an overall plan. In fact, the overall plan should come first. An overall plan that includes functional relationships (but not necessarily detail concepts) declares general land use relationships and yet allows for future detailed change. Therefore, basic functions, such as transportation nodes, specific natural areas, or commercial areas, can be identified but need not be detailed. The overall plan identifies relationships with contiguous areas and plans for their redevelopment.

Upon completion of an overall master plan, it should be studied for division into subunits that may have differing priorities of development. There could be several sets of criteria for the subunits: 1) first stage--that preparatory work which is feasible to render the site usable for "second-stage" park/business development; 2) second stage--the most important portion of the park/business complex to be built first, for immediate impact in providing public use and making greatest impact on public; 3) third stage--a longer range plan (perhaps five or six years) that includes a greater variety and a greater number of facilities and services; 4) fourth stage--the long-range and completely filled out plan meeting ultimate goals.

The first two stages require complete short-range design preparation of working drawings, specifications and bids for construction. They represent the immediately tangible development. They are based upon now-known facts and projected use of the park/business complex.

The last two stages need to be based as much upon the experience of the first two as upon now-known information. In other words, after the first priority construction has been open to the public, many factors can be given a new evaluation. The potential for more private investment, greater public financing and uses that were not originally anticipated can now be determined.

Staging allows a realistic flow of development over a period of years. A city is dynamic and continually adapts to changing needs. At the start of the design and development of a park/-business complex it is impossible to foresee all these elements of change.

## MODELS

A portion of this study effort was devoted to the development of urban park/business planning and design models. Marmon, Mok, and Green (1973) were assigned four "given" situations representing composite urban core conditions typically observed by the authors during the research. The given conditions included a sketch plan of four hypothetical sites with location of streets, water resources, buildings, some notes on building quality and relationships to surrounding areas. From the given conditions for each model a recommended development was created. Presented here are the "given" conditions, "functional" recommendations, a sketch "concept plan" and perspective "sketches" for each of four models.

## MODEL "A"

### GIVEN

This hypothetical site is typical of urban waters that have been given flood protection by building levees and creating a channel floodway.

The existing city street grid pattern has been modified by new streets paralleling the waterway. No commercial shipping use is made of the canal.

### FUNCTION PLAN

Primary access is identified, suggesting the needed location of parking areas. The "core" of the complex, representing the focal point of major park/business use by visitors is shown as grouping together some structures on both sides of the canal. The core favors the business side of the river, suggesting greater commercial opportunities here. But, the core is composed of two primary segments one straddling the canal and one in the business area. Linkage with both housing and supporting business is identified. The upper and lower segments of the canal environ-

ment are planned for quiet and passive recreation use, such as nature interpretation, hiking and a scenic drive linkage with other greenway parks along the canal.

### CONCEPT PLAN

The sketch concept shows one way the complex could be designed. The canal would be put into urban transit use as well as for sightseeing. Levees would be widened to alter the rigid engineering aspect, creating more interesting and naturalistic land forms. Pleasant landscape would be provided outside the concentrated activities in the core. A special feature might be an overlook in the park along the upper reaches of the canal. Historic renovation and restoration is included. Heavy dayuse services such as shops, restaurants, convenience stores, and a community center are provided in the landing area. A broad overlook walk binds both sides of the canal together.

Sketches illustrate possible views of community center linkage with residential area, landing complex and new street mall on business side of complex.

FIGURE 47.

Model "A" Given.

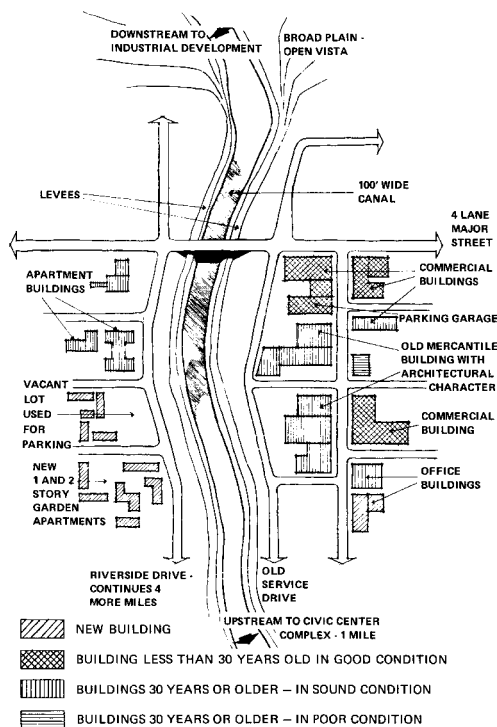
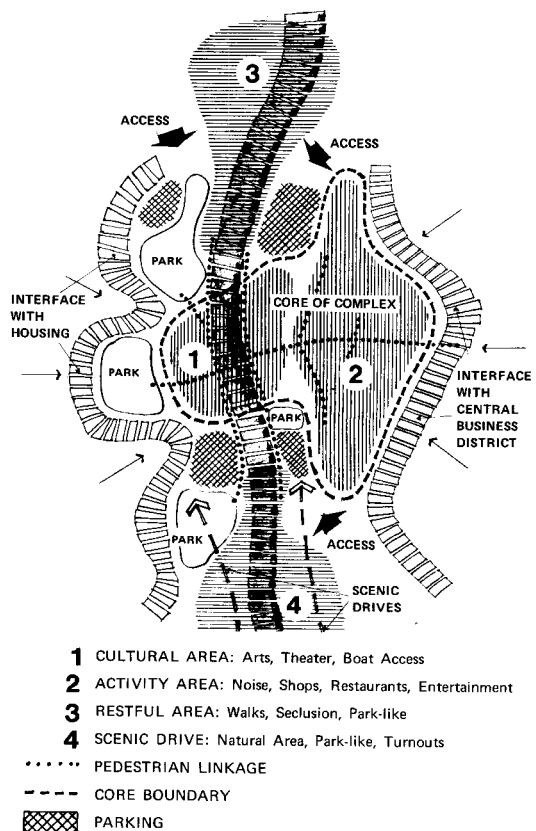


FIGURE 48.

Model "A" Function Plan.



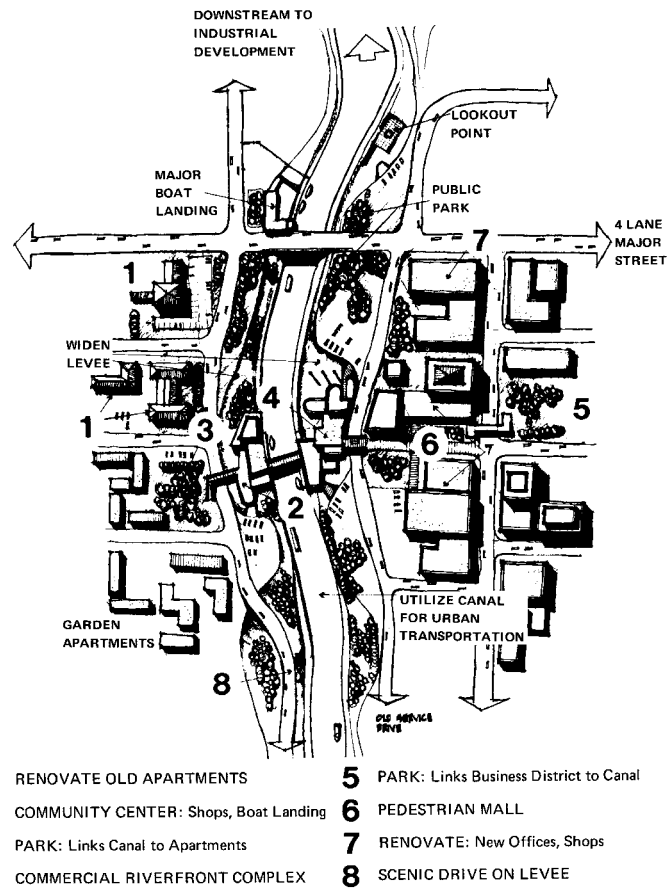
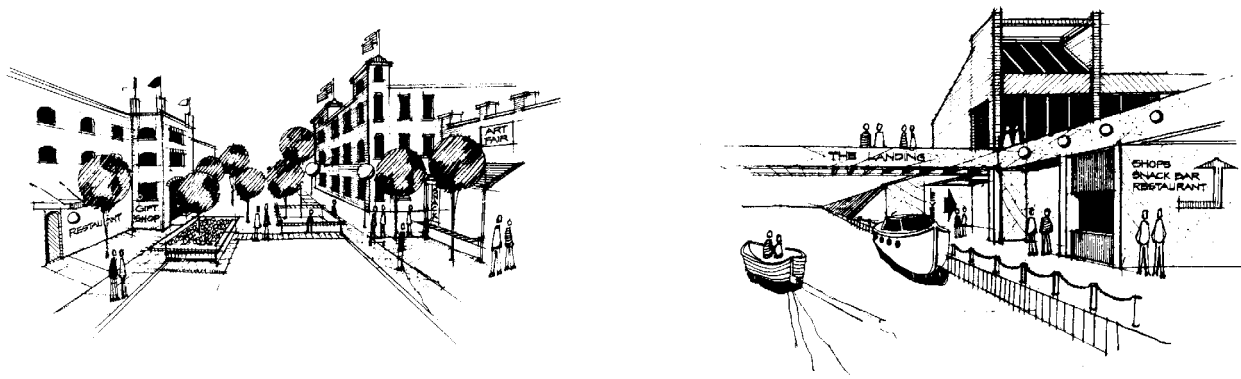


FIGURE 49.

Model "A" Concept Plan.



## MODEL "B"

### GIVEN

Assumed in this hypothetical site is an abused small stream, surrounded by trash and undergrowth. Older manufacturing buildings back up to a railway siding along one side of the stream valley and an older commercial section flank the other side. An elevated freeway, with no access in this vicinity, has built near the manufacturing area. No major flood poses a threat and the stream flow is reasonably regular the year round.

### FUNCTION PLAN

The designer has conceptualized the basic functional elements, developing the central core to tie existing manufacturing with park and service business functions.

The entire central portion is a restful landscaped greenbelt depending primarily on pedestrian access. However, a minibus provides linkage between parking areas and the main attraction features.

Design linkage between freeway and the complex as

well as between the complex and the central business district is provided.

### CONCEPT PLAN

The function plan has been carried out in physical plan.

The natural setting and park-like atmosphere dominate the complex. The stream has been dammed to form a reflecting pond. Low-key activities, appropriate to such a setting, are encouraged in this park area.

However, fingers of the park reach out into both the business and the industrial sides of the park. This linkage has been directed by planned walkway and openings as well as mass plantings that provide a dense screen.

The ground floor of renovated buildings is converted to restaurants, shops and entertainment for visitor use. A pedestrian mall ties this area with the central park area.

Sketches illustrate projected views of features of both the park and business aspects of redevelopment.

FIGURE 50.  
Model "B" Given.

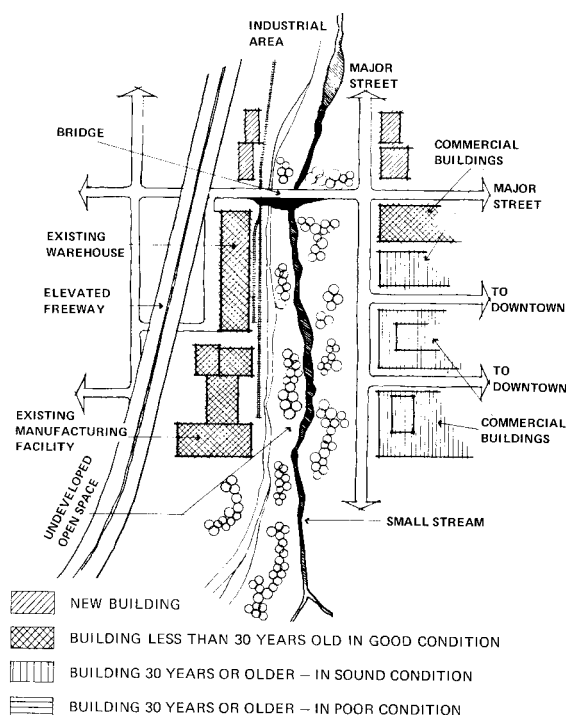
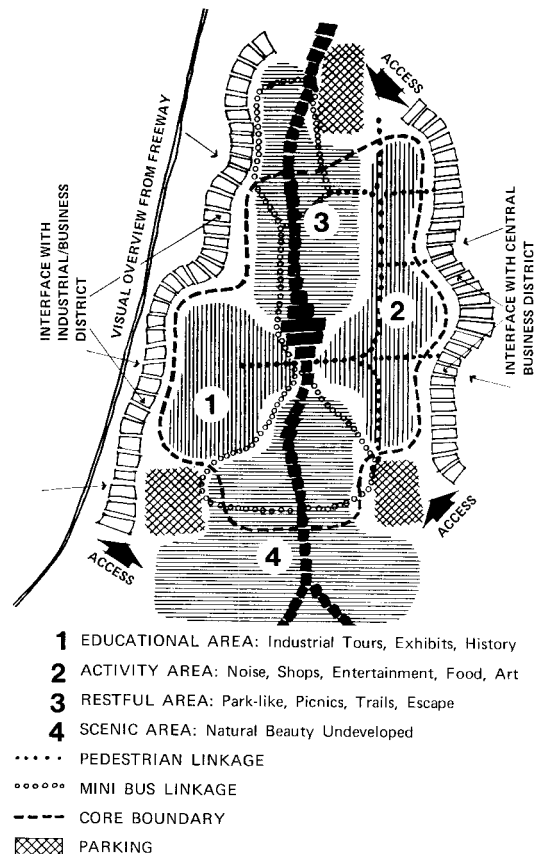
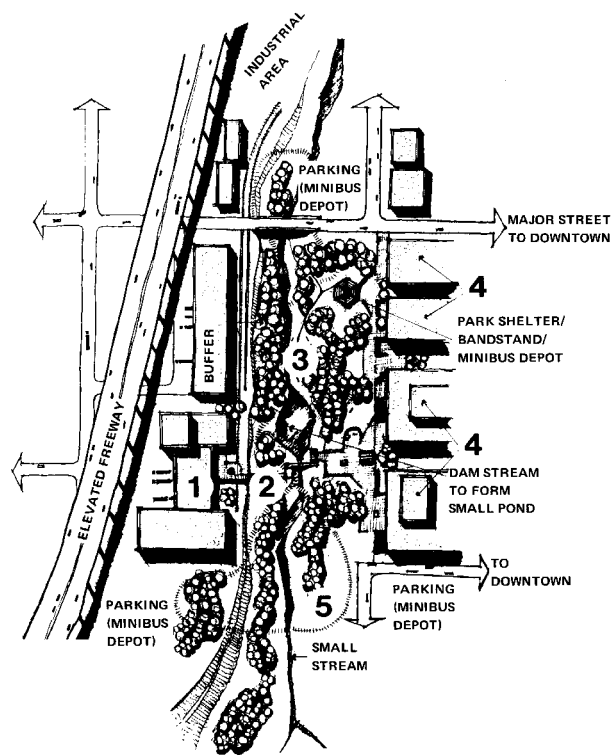


FIGURE 51.  
Model "B" Function Plan.

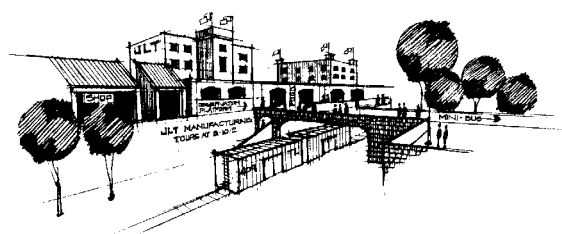
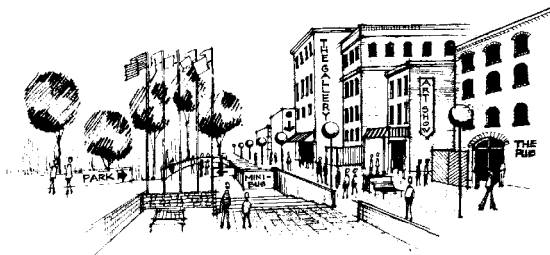




- 1 INDUSTRIAL TOURS, EXHIBITS
- 2 WALK: Links Industry to Park
- 3 SCENIC WALK: Picnic, Rest, Nature Appreciation
- 4 RENOVATE: Shops, Cafes on First Floor
- 5 MINIBUS: Links Parking to Complex

FIGURE 52.

Model "B" Concept Plan.



## MODEL "C"

### GIVEN

This site includes a canal enclosed by concrete flood walls and is used by commercial traffic to piers beyond the site.

Open space is limited and older structures dominate the area. Several buildings are close to the canal. The entire setting is within the old established central business district.

### FUNCTION PLAN

The park/business complex core is confined to the heart of the site but includes both sides of the canal.

Open space buffers are placed at both ends of the complex along the canal and lead to limited outdoor recreational functions near the heart of the core.

Intensive use is planned in the core--convention center, hotel, bar, entertainment. Views (especially at night) are included in functional relationships.

A pedestrian walkway along the canal becomes circular by utilizing footbridge additions to highway bridges and a new tie in the core of the complex.

### CONCEPT PLAN

This interpretation of the function plan reflects the more rigid and formal dictates of the given situation. Yet, this rigidity is softened greatly by the landscape walkways, malls and open space.

A major tower is the dominant new feature and includes a convention center and hotel. Overlooks from an observation deck become an important aesthetic feature for all visitors.

Activity dominates this model, even though pockets of quiet can be found. These activities make use of existing structures wherever possible.

Sketches illustrate key vistas within the complex. A refacing of older non-historic structures and creation of pedestrian walkways along the canal offer interesting settings for pleasure, both day and night.

FIGURE 53.  
Model "C" Given.

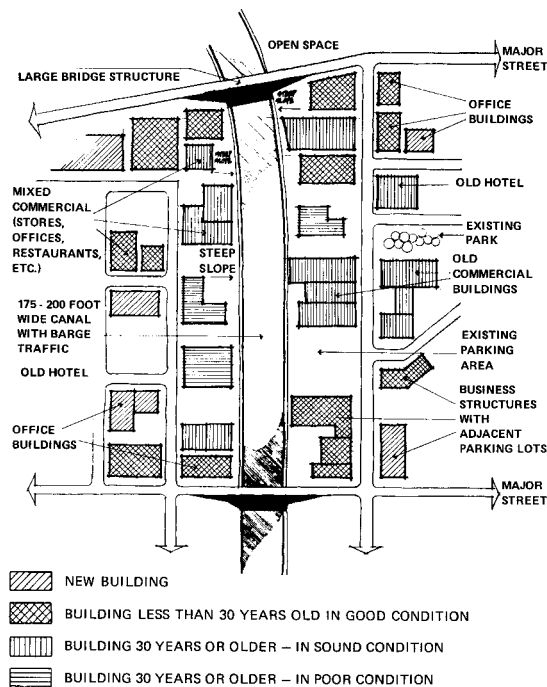
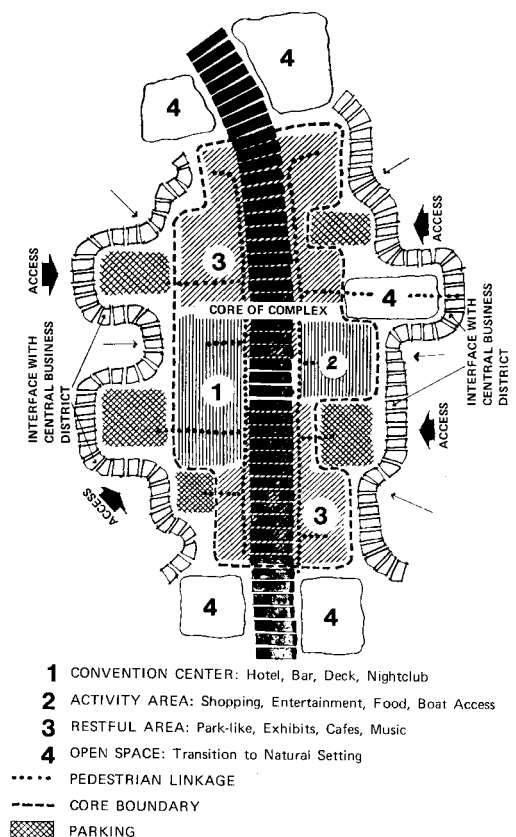


FIGURE 54.  
Model "C" Function Plan.



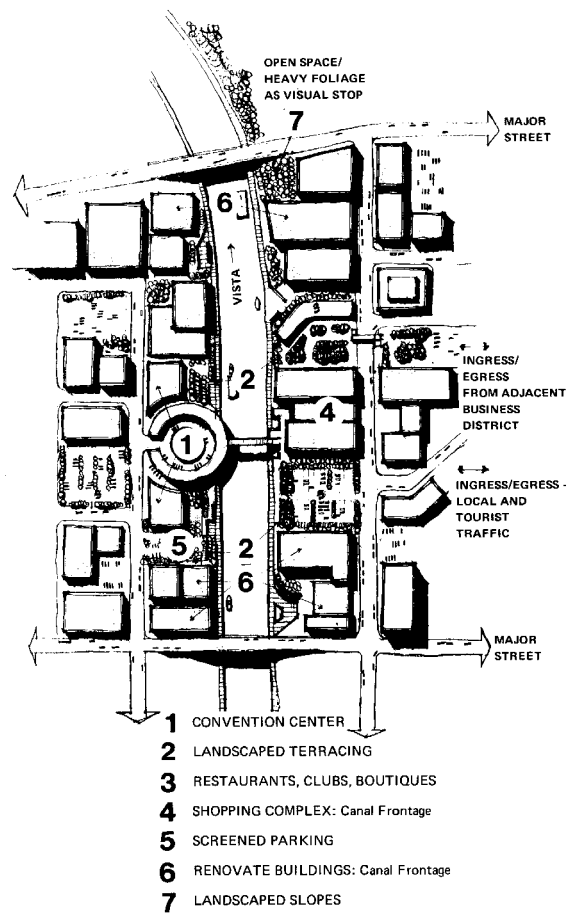
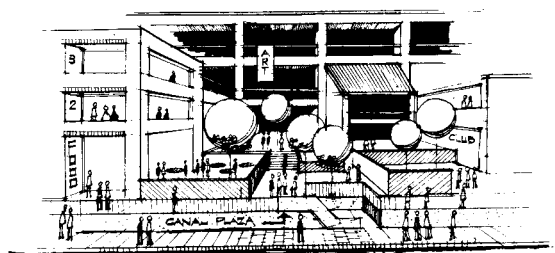
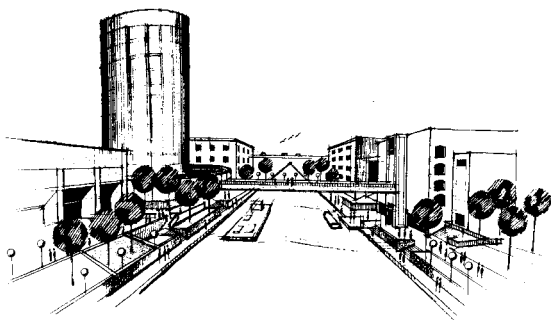


FIGURE 55.  
Model "C" Concept Plan.



## MODEL "D"

### GIVEN

Although most of the urban settings contain river water resources, many coastal cities plan redevelopment of downtown waterfront areas. Therefore, this set of given conditions includes a beachfront city core.

A main street (or one paralleling the main street) allows one row of buildings along the beach. A mixture of old and new structures is assumed. A major seawall has been constructed to protect the city from tidal waters that usually accompany hurricanes.

### FUNCTION PLAN

This diagram of functional relationships shows how main features could be developed from the given conditions. The core of the complex ties the waterfront back to the historic base of the business district.

Because the beach is the main feature, the more intensive activities are concentrated near the heart of the complex. Active, noisy, busy beach functions are tied to shops, restaurants, entertainment and

meeting facilities. Because of the barrier formed by the beachfront street, this linkage is by a major pedestrian bridge.

Mass parking is provided around the periphery.

### CONCEPT PLAN

The designer has worked up a conceptual scheme within the functional framework. The important older buildings have been retained and restored, open space has been provided and new structures suited to the park/business complex have been added.

The long and monotonous seawall has been broken at the core with a unique design that provides for a shop area and a protected beach. Further engineering feasibility may be needed for this design.

An alternate solution, especially with greater intensity of use, may be to block off the beachfront street, devoting use entirely to pedestrians. This produces stronger ties between water and land, especially important for greater use.

Sketches illustrate the features of this design solution.

FIGURE 56.

Model "D" Given.

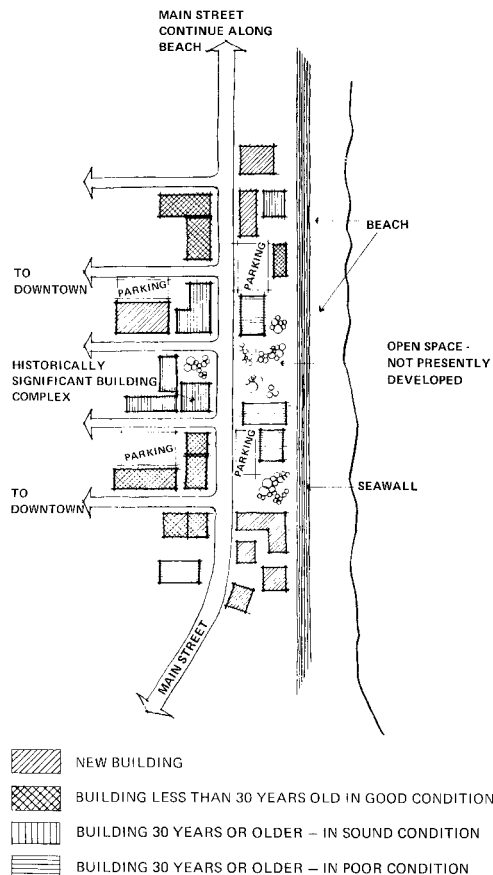
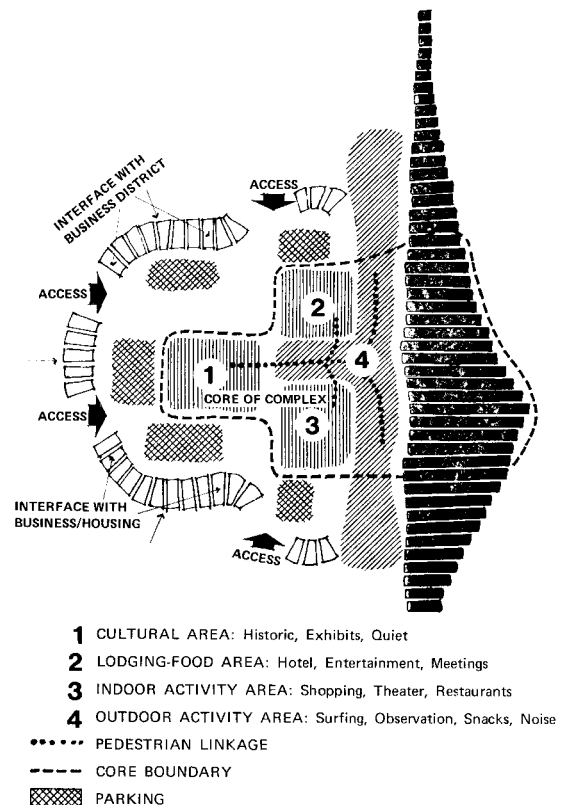
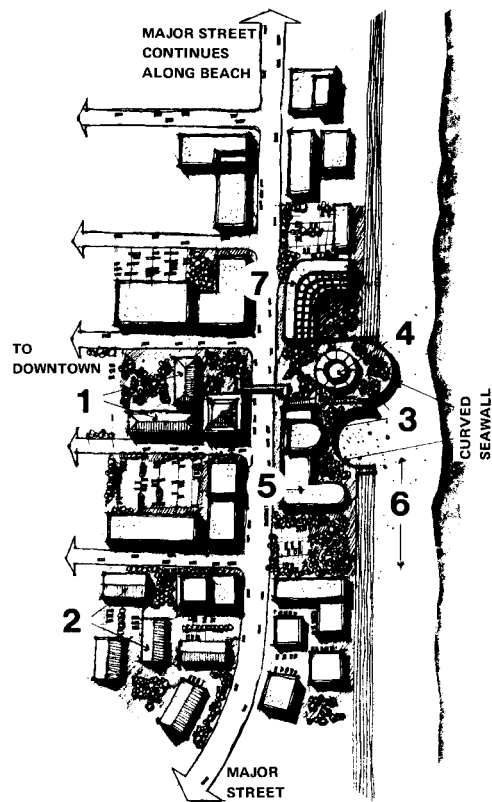


FIGURE 57.

Model "D" Function Plan.



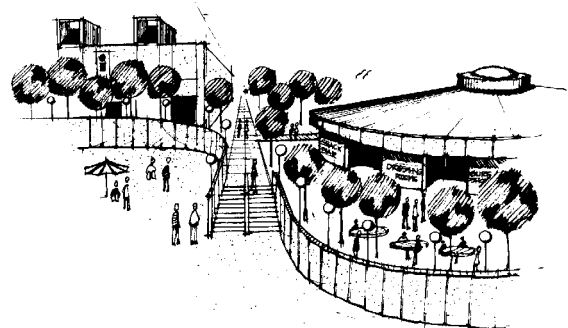
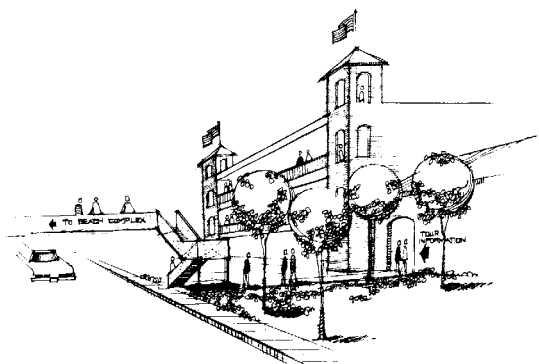




- 1 HISTORIC RESTORATION
- 2 NEW HOUSING: Compatible Design
- 3 PARK: Observation Area
- 4 RECREATION COMPLEX: Shops, Snack Bar, Dressing Rooms
- 5 RESTAURANTS, SHOPS
- 6 BEACHFRONT
- 7 NEW HOTEL

FIGURE 58.

Model "D" Concept Plan.



## DESIGN PRINCIPLES

Even though each city is unique, the researchers observed that there were common design questions that need to be raised during planning of a park/business complex using downtown water resources. The following list represents the kind of questioning that needs to be done jointly by designers, planners, developers, owners and civic officials.

Will the park/business complex need to serve the "walk-through" shopper as well as the "destination" user?

Will the users be primarily outside tourists or local?

Must the operational management have control of all entering and egress?

What kinds of land use adjacent to the water will be encouraged, discouraged?

What policies of water surface use will prevail?

What percentages of the land area and frontage on water will be devoted to "park" and to "business?"

What internal circulation will be provided by the management (minibus, sightseeing barge) and by the user (bikes, on-foot, etc.)?

Will management and control be provided at all seasons of the year?

Will management establish a high-standard of maintenance service (litter pick-up, waste removal)?

Will management provide interpretive guide service for natural and historic areas?

A critique of plans for a park/business mix should include examination of the following elements:

Are there ample spaces for public gregariousness/private withdrawal?

Is strolling planned freely and yet is the guest led along several opportunities to stop, relax and shop?

Are there places of frivolity, gaiety and excitement as well as places of tranquility, peace and repose?

Are the many aesthetic qualities of water "exploited" to the fullest and in good taste--sound, coolness, reflection, movement, mass?

Are adequate vistas established to provide for both the moving and the static visitor?

Does the walk alignment offer suspense and change at the same time it gives impressions of large and massive scale?

Is the area large enough to have a major impact on the city and provide enough satisfaction for the visitors and yet small enough to become an accomplished fact reasonably soon?

Have building and site designs been created in harmony to provide a link between buildings and grounds?

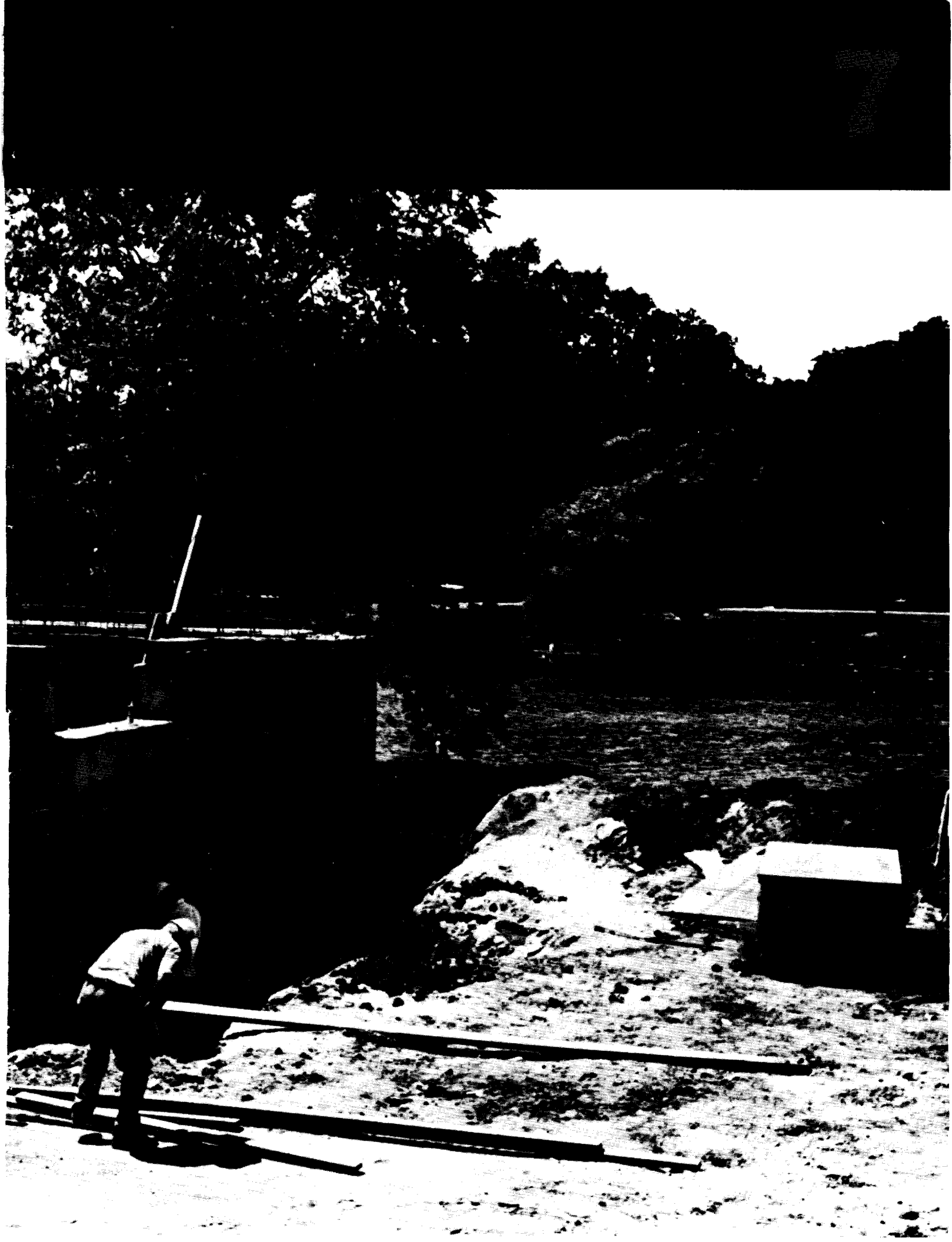
Has the water-land interface been designed as a flux rather than as a barrier, making artful and functional use of bridges, boats, walks, edges?

Have functions and designed improvements been "zoned" to offer both compatibility and separation of uses by visitors where needed?

Do the plans call for effective levels of shade, color, screening and erosion control through artistic and functional uses of present and proposed plantings?

Is there adequate provision for night lighting, both for aesthetics and for safety?

How well has historic site and building restoration been integrated into plans for new uses?



## 7. IMPLEMENTATION\*

### CONCLUSIONS

- 1. Implementation needs to be an integral part of the entire process of investigating and planning a park/business. Although the process may be similar in different cities, the overall strategies and roles of each actor vary considerably.*
- 2. Evidence shows that the forces most likely to support initiation of implementation are highly motivated non-governmental groups.*
- 3. While political leaders at times play important roles, park directors, planning directors and other government group leaders are more likely to support the follow-through of implementation.*
- 4. Experience thus far has shown the importance of federal funding in successful completion of implementation.*
- 5. Generally, city agencies, police departments and parks departments play the heaviest role in operating and maintaining a park/business complex.*
- 6. Implementation pitfalls include lack of flood control, competing land uses, and ownership restrictions.*
- 7. Lack of adequate commitment to potential implementation by decision-makers at the start may have much to do with implementation problems later on.*

\* The material in this chapter has been extracted from "Decision-Making Factors Affecting the Development of Urban Core Waterfronts for Park/Business Use" by John W. Hanna.

"The plan is gathering dust on the shelf" is a popular cliché among critics of planning. It suggests that a breakdown frequently occurs between plan preparation and implementation. A major objective of this study was to investigate implementation of urban park/business plans. Interviews in nine cities and the survey of 119 major cities provided helpful information on current experience on planning implementation (Hanna, 1974). The study showed that slightly over half of the proposals that reached the planning stage have not been implemented. Out of the 119 cities surveyed, 107 have potential for development, 68 have prepared proposals, 59 have been planned but only 28 have been implemented. The following discussion includes the main topics researched: the implementors, funding agents, implementation pitfalls and recommendations.

### IMPLEMENTORS

This investigation searched for a comparison of the strength of support for initiation and follow-through of implementation among four categories: private individuals, nongovernment groups (chambers of commerce, businessmen's groups, special committees), political leadership and city groups or departments. Support to begin the implementation process most frequently came from nongovernmental groups. For example, support to initiate plans was generated by chambers of commerce, planning consultants, civic groups, private developers, business leaders and riverfront land owners. A generally high level of participation of political leadership was also evident at the start.

However, this initial participation of political leadership was noticeably absent among the proposals that resulted in actual development.

Table 2 shows a summary of types of leadership that visibly supported implementation as the project went ahead to development. Projects that reached development had almost twice the support from government group leaders (including the planning and parks directors) as from the mayor and city manager. Projects that had not reached implementation had most of their support from mayors. Mayoral support was not significantly correlated with development completion. One possible explanation of this might be the lack of tenure in the office of mayor. The long time frame required for completion usually means that

the project will be completed during a subsequent term and possibly a different mayor. Behind-the-scenes support demonstrated a similar pattern to visible support. In many cases respondents listed the same person in both roles.

In spite of the relatively high number of plans not reaching implementation, there was very little opposition reported. Only six respondents (out of the 59 that had plans) reported any opposition to implementation. Of those six, three were in some phase of implementation and two had completed development. This suggests that further research into causes of decay in the planning-implementation linkage is in order.

Part of the problem may stem from the semantics of planning and implementation. The researchers are of the opinion that when planning and implementation are considered a continuous strategy, the breakdown of implementation is less likely to occur. Where distinct cleavage between the two phases occurs and implementation becomes an afterthought, the chances for establishing a complex are much less.

The following direct quotations from volunteered information from some of the respondents of the 119-city survey may be of interest to those concerned with implementation.

*"This was a partnership between the political and business leadership. The place itself was an excellent one--has won national acclaim and therefore has convinced the general public of its worth."*

*"The proposals were implemented because the City Planning Department, Water District and an influential committee appointed by the City Council made it a high priority."*

Table 2

SOURCES OF MOST VISIBLE LEADERSHIP  
AS THEY RELATE  
TO PROJECT IMPLEMENTATION

Source of Visible Leadership	Percent of Projects Implemented (n=28)
Mayor	21
Government group leader*	28
Private group director	14
City manager	4
Council members	14
Planning director	7
Parks director	7
Private individual	4

\* May include planning directors and parks directors.

*"Proposal is a 20 year proposition. Some elements are underway, others await proper timing and funding."*

*"A project is still very probable--a 'Downtown Study' currently underway will be looking at this very closely."*

*"Implementation of the proposals has been an outgrowth of additional public support to revitalize the Downtown, provide additional community park and open space, and serve as the City's Bicentennial contribution."*

*"The theme, 'Return to the River' struck a responsive chord in this area."*

*"It was a realistic plan to develop the riverfront and relocate railroads, opportunity timed and ready to utilize need for railroad and CBD modernization, environmental concern and Spokane's 100 year birthday."*

*"Because of technical factors, central waterfront area no longer suitable for ocean commerce, but still interesting for visitors. This, plus desire for more public access to water and more control of waterfront development, led to proposal."*

*"Proposal is proceeding toward implementation. Special state legislation will be required, as well as capital outlay by the state/federal government. All indications are that the project will be carried out."*

*"The proposal was implemented because the weight of evidence dictated that it was the only sensible and human course to take. This study is in process and will take approximately 18 months to complete."*

*"Money was available through Neighborhood Development Plan. The proposal was*

*a report on improvement concepts for I-35W Canal Route project, including river development. Segments of proposal are being initiated. This proposal was a plan for overall city beautification, including riverfront development. Parts of the plan are being implemented in different segments. Proposal offered developers advantage of being taken off tax roles. Many felt this would put hotels in unfair competitive position. Money was available through URA and the community was interested. When funds were available, Civic Center became a reality. Construction on various phases of the proposal are being implemented as funds are available. Plans suggested were redeveloped and implemented as money became available. Implemented due to general public support."*

*"The persistence of two mayors, backed by civic and business leaders to strike at decay in the CBD brought implementation. Economic necessity followed by community pride and historical significance were the major factors."*

*"The Riverfront development program was implemented with little opposition and excellent citizen support because of the extensive public reviews and citizen involvement, and having a good, practical plan."*

*"In being--because of outstanding historical merit in the area, geographical location, high quality business involvement, civic pride in the environment; logical, well developed plan in which most stand to gain, i.e. city, developers, public, and few if any lose (run-down areas of abandoned R.R. and buildings)."*

*"Total community support. Civic interest in improving the Greenbelt Park Area through heart of the City."*

## FUNDING AGENTS

Development funding of the cities studied is summarized in Table 3. Urban renewal funds were significantly associated with implementation and development success. Also, bond and private funding has accounted for a variety of urban core waterfront developments for park/business use. A period of bond program success was noted during the late 1960's and early 1970's.

## OPERATORS

Agency responsibilities for operations after establishment of a complex are summarized in Table 4.

Table 3

### SOURCES OF DEVELOPMENT FUNDING RELATED TO PROJECT IMPLEMENTATION

Sources of Development Funding	Percent of Projects Implemented (n=28)
Renewal Project	32
City	21
Bonds	14
Private	21
State	7
Federal*	32
Combination	7

\* Many reportings of Federal funds may be associated with urban renewal.

Table 4

### AGENCIES RESPONSIBLE FOR OPERATIONS

Operations Agencies	Percent of Projects Implemented (n=28)
1. Administration	
City <sup>a</sup>	43 (12) <sup>b</sup>
Parks department	36 (10)
Other	11 (3)
2. Law Enforcement	
Police department	71 (20)
Private	7 (2)
Waterfront authority	4 (1)
Public works	4 (1)
Other	7 (2)
3. Maintenance	
City <sup>a</sup>	25 (10)
Parks department	36 (10)
Private	14 (4)
Other	7 (2)

<sup>a</sup> Some respondents did not specify the agency within city government responsible for operations. Interview experience indicated some operations reported as "City" may have been carried out by "Parks Department."

<sup>a</sup> Actual members reporting.

## IMPLEMENTATION PITFALLS

Throughout this study, several pitfalls of site condition and political action have been cited. The specific inquiry by the survey revealed that the majority of the respondents either were reluctant to identify pitfalls or believed that there were none. However, the comments that were expressed indicate some of the major pitfalls that should be considered.

Table 5 shows competing land uses such as industry, transportation and ownership restriction as the most often mentioned deterrent to urban core waterfront development for park/business use. Pollution, lack of funds and insufficient year around water were mentioned several times.

Comments such as “. . . too many restrictions in city's core;” “All development along

riverfront has been industrial;” and “Riverfront is separated by sloping terrain, a railroad line, and collector street (scheduled for 4-laning) from CBD;” point out some of the restrictions cities have imposed upon themselves deterring urban-core water development for park/business use.

Other problems are reported in comments such as: “Rio Grande River is international border adjacent to urban-core, river is dry most of fall and winter;” “City has not had the financial resources to expand on park and recreation expansion;” “River is severely polluted and surrounded by predominantly industrial uses;” and “Levees have been erected along both sides of river preventing the kind of development depicted in your pictures.”

These and other comments stress some of the difficulties facing persons or groups interested in initiating urban-core water developments for park/business use.

Table 5

### DETERRENTS TO URBAN-CORE WATERFRONT DEVELOPMENTS FOR PARK/BUSINESS USE

Deterrent	Number of SMSA's Reporting
Threat of flood	6
Preemptive industrial land uses	6
Pollution of potential sites	4
Ownership restrictions	3
Lack of dependable water supply	3
Lack of development funds	3
Potential site used for housing	1
Restrictive topography	1
Apathy	1
Conflict with transportation system	1



## IMPLEMENTATION RECOMMENDATIONS

The following recommendations were derived from the study of implementation and therefore are limited to the existing experience of urban park/business development. They include items for planners and decision makers to consider relative to implementation in their individual situation.

Many planners and decision makers travel to San Antonio in search of the ingredients of success. There they see inter-agency cooperation and initiative at work in a beautiful setting. They return with enthusiasm and ideas. Consideration of the following recommendations should help them direct that enthusiasm into positive implementation:

1. Treat every situation as if it is unique, for it is. Solutions for problems in other areas may not solve local problems.
2. Make certain the city has some commitment to the project. Bumgardner (1974) found that the following types of commitments from city government were vital to the implementation of park and recreation master plans: a) funding support, b) budget approval, c) obligation to adopt or approve the plan, d) obligation to implement the plan, e) obligation to pass legislation, f) announced support of bond issue, g) obligation to promote the plan, h) obligation to support the plan for land acquisition.
3. Know your support and opposition at all times. Enlist friendly members of the power structure to help you line up votes

and solicit support even from your opposition. Seek visible support from the political leadership. If they identify with the project, its completion becomes a priority item.

4. Assess the funding possibilities. Know your chances of funding prior to committing the city to the project. Referendum bond funding may be successful during favorable economic times but should be avoided at other times. The redevelopment concept utilized in San Jose (p. 86) provides a feasible funding vehicle with proper state enabling legislation.

5. Involve citizens as much as possible. Be sensitive to their inputs. Public hearings and citizen action groups may cause delays but should result in less resistance to implementation. Community groups or individuals may be able to devote full time to the project and continually keep it alive.

6. Prepare to accept inflated land prices and increased construction cost. This has forced revision of some projects.

7. Study decision making patterns in your community and identify decision makers on closely related projects. Learn from their success or failure and apply these factors to your implementation process.

It is hoped that use of these observations will assist in integrating decision making and implementation of the urban-core waterfront development for park/business.



## 8. EXAMPLES

Based upon returns from the nationwide survey, nine cities were selected for site inspection and interviews. These situations were not intended to represent success or failure but rather to show the diversity of city involvement in park/business development. Therefore, they included cities in which the development was complete or not even started, related to urban renewal or to many other sources of governmental action, associated with economic cycles or related to special events.

The on-site experience was limited to two days in each city and included inspection of sites and interviews (an average of eight in each city). The examples reported here reflect the corroborated expressions of knowledgeable in each city. However, further research would be needed to provide greater depth of understanding of political and social action on projects of this type.

The problems and solutions presented in the examples are unique to each city. They are presented with the intent that other cities may profit from these brief reviews of experiences. The future of urban-core waterfront development for park/business use is dependent upon the dynamics of city change, and every city possesses its own unique decision-makers and decision-making patterns.

### FLINT

Flint is bisected by the Flint River, a dangerous flood liability. Disastrous flooding in 1947 prompted numerous requests for flood control studies by the Corps of Engineers. The

study resulted in flood control measures that were largely carried out by 1968. The only remaining segment of the Flint River to be controlled was the portion flowing through the central business district.

In 1968, a renewal plan for the central business district was adopted by the city council calling for beautification of this remaining river segment. The beautification plan gained immediate support from downtown business interests, the Mott Foundation and the Flint Environmental Action Team. Of these groups, the Mott Foundation could most effectively control planning and development activity by simply lending or withholding support.

As support developed for the implementation of the urban-core renewal master plan, the Flint Department of Community Development acted to stop the Corps from continuing channelization of the Flint River. This gave time for the city to hire a planning firm to prepare several beautification concepts of the river. These plans were submitted to the Corps for review and consideration of funding level revision. In 1973, the Corps agreed to increase their support to allow a basic beautification scheme. The city also presented two alternatives beyond the basic beautification scheme calling for city investment of either \$3.5 million or \$7 million.

The mayor then formed the Flood Control Citizens Advisory Committee which recommended that the city move ahead with the most ambitious scheme of beautification. One of the key members of this group was an ex-newspaper reporter who serves a downtown

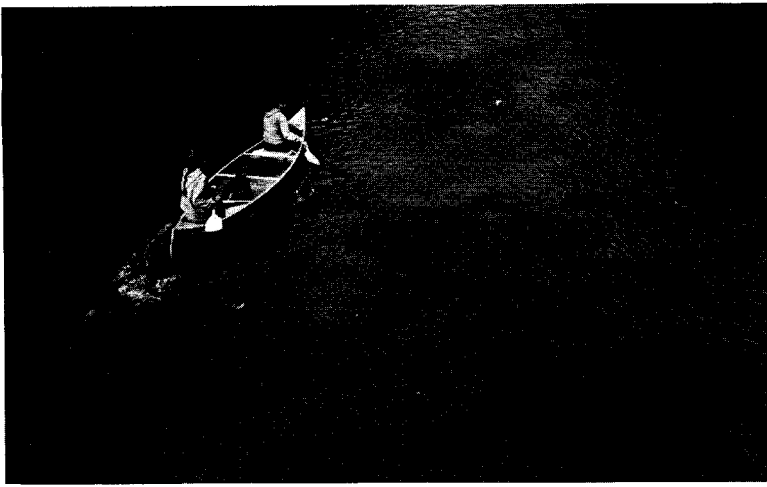


FIGURE 59.

The Flint River has potential for recreational development.

businessman's association.

Many of the community leaders involved are hopeful that a show of city support for this project will result in a substantial monetary commitment by the Mott Foundation. The city has been encouraged in the past to step out on its own and not rely on Mott money; however, ample evidence supports the dedication of the Mott Foundation to the community.

## HOUSTON

Houston's Buffalo Bayou has been described as potentially the most significant open space in the city's center. To date, its primary function has been as a passageway for flood waters of northwest Houston.

The bayou is undeveloped with the exception of a small park at Allen's Landing. This park was established in 1963 as a Chamber of Commerce project. The Chamber assembled archi-

tects, engineers, material suppliers and labor to complete the project in 1967. The Chamber hoped this demonstration of community leadership would act as a catalyst for the redevelopment of the city's original business area along Buffalo Bayou.

To date, no additional physical developments have taken place. Observation and interview suggest two reasons: 1) the bayou water in the central business district is subject to great periodic fluctuation; 2) the nearby businessmen have expressed sporadic interest in development.

As the age of environmental concern came to Houston two groups became identified with bayou development: 1) the environmentalists, 2) the development interests including realtors, builders, developers, the Corps of Engineers and flood control interests. This renewed attention to the bayous of Houston resulted in a conceptual plan for the beautification and improvement of Buffalo Bayou adjacent to the central business district.

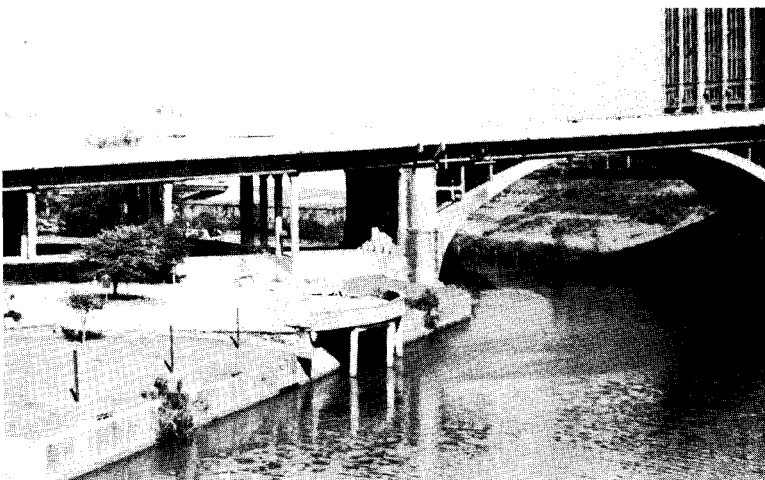


FIGURE 60.

Allen's Landing Park has been the only development on Houston's Buffalo Bayou.

FIGURE 61.

The Indianapolis Water Company Canal has potential for park/business development in spite of existing conditions.



Upon completion of the Buffalo Bayou master plan, the city council adopted the plan but did not take any action on funding the project. The \$3 million cost of the project could not be funded through general revenue.

The threat of flooding meant that little business development could be developed within the banks of the bayou. Therefore the city would not realize revenue from the developments. As a result, bonds were not viewed as a feasible way to finance the project. A flood control plan that would divert flood waters around the present Bayou and stabilize water within it would lay the base for potential park/business development.

The Chamber of Commerce remains actively interested in the Buffalo Bayou area. As a strong-mayor city with a strong Chamber of Commerce, it might be possible for development to take place in a relatively short period of time if the proper conditions can be created.

## INDIANAPOLIS

The Indianapolis Water Company Canal borders the central business district and is bounded by parking lots, warehouses, utility plants, sub-standard housing, business, railroads, a university campus, a park and a city-county office building. Historically the canal attracted industry to its banks due to the availability of water power and disposal capabilities.

As Indianapolis grew, forcing dirty industry from the city's center, the canal played a less important role. In the last ten years it has been no longer economical for the city water company to maintain the canal for the few remaining customers along its banks.

In 1965, a local newspaperman compared the potentials of the Indianapolis water canal to the San Antonio River Walk. His appeal did little to stimulate the city.

In 1968, students from the University of Illinois did a plan of the urban-core area oriented to the visual and recreational assets potentially offered by the canal. This report was given limited exposure in the local newspaper and later was shelved.

In the late 1960's, a new mayor formed a task force to investigate new uses of the water company canal. The task force recommended that the park board consider purchase. It was hoped that this canal area could be a catalyst for redevelopment of the entire downtown area. The park board investigation revealed the many liabilities of the project, and it was determined that the price would be too high under almost any conditions.

In 1971, the water company donated the property to the city with the condition that a development plan be prepared within the next two years. This decision may have been self-interest motivated. It was reported that the

property had proven impossible to sell and the donation would offset capital gains and lower the water company's rate schedule.

Recently, Indianapolis was granted \$400,000 by the National Endowment for the Arts to prepare a canal beautification plan. This has focused renewed attention on the water company canal, and a private consulting firm has been retained to prepare the plan.

## SAN ANTONIO

The site of the San Antonio River Walk is a horseshoe bend on the San Antonio River in the central business district. In 1921, the downtown area was heavily flooded by the river. This created a great deal of public support for channelizing the stream and eliminating the horseshoe bend in the downtown area.

Some dissatisfaction was expressed with the concept of eliminating the portion of the channel in the downtown area, and in 1924 the San Antonio Conservation Society was born as a result of interest in saving the horseshoe bend. A flood control project was completed in 1929 leaving the horseshoe bend with a stabilized water level. During the next several years local citizens contemplated the design possibilities presented by the stabilized river channel.

In 1938, the Works Progress Administration became interested in the horseshoe bend and agreed to provide funds for the design and construction of beautification of this area. The work consisted primarily of bridges, rock retaining walls, walks, and landscaping. Even today, this work represents a conspicuous portion of the River Walk.

Little was done for the next 20 years and the River Walk developed a bad local reputation as an environment for crime. In the late 1950's, several local citizens discussed the idea of restoring the appeal of the river. Improved law enforcement and additional attractions were greatly needed by the area; only one restaurant was actually oriented to the river. A Disneyland scheme was proposed by a consulting firm but this did not totally please the persons who requested the study. The proposal did stimulate new interest in the project.

The city council passed an ordinance in 1962 creating a River Walk Commission. This commission was empowered to act on all building permits within the River Walk area and to advise city council on matters pertaining to improvements on the River Walk. In 1964, River Walk improvements were passed in a bond election and owners of riverfront property began to remodel and rehabilitate properties for commercial use.



FIGURE 62.

The San Antonio River Walk demonstrates that a small amount of water can be powerful.

The city began preparation for a world's fair in the mid 1960's. HemisFair acted as a catalyst to develop the River Walk into a significant civic center--even excavating an extension to serve a new convention center. Throughout all this development the Chamber of Commerce played a strong and highly visible role. Other civic organizations and governmental agencies were also deeply involved in the project.

To date, one of the most impressive features of the implementation of the River Walk project is the air of cooperation and collaboration among many major agencies and organizations. The River Walk is a prototype of park/business urban-core water use. Its mix of business, park, entertainment, shopping, and conference facilities is a dynamic phenomenon that speaks highly of the level of cooperation achieved between government, private organization and commercial enterprise.

## SAN DIEGO

For many years, shipping and military use have dominated San Diego Harbor activity. But, the 1950's and 1960's witnessed increased tourism orientation and the waters became a very significant recreational resource. The creation of Mission Bay--a 4,600-acre recreational water-oriented complex in San Diego--heightened interest in tourism and recreational

development. A lack of broad-scale and coordinated planning effort, however, resulted in a waterfront separated from the central business district by a major thoroughfare.

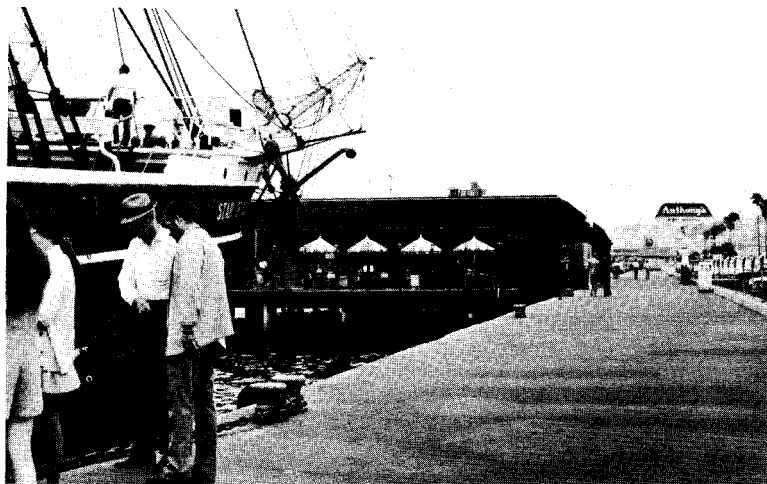
In 1962, California passed enabling legislation creating the San Diego Unified Port District to develop the economic aspects of San Diego Harbor. Their first master plan recognized the importance of developing a segment of the downtown port for park/business use. The local chapter of the American Institute of Architects was solicited to help plan the central business district waterfront. In two cases, AIA plans were developed for areas under Port District jurisdiction.

One of the voluntarily-submitted AIA plans for the "Embarcadero" required cooperation between the city and Port District. The two groups had dramatically contrasting ideas and they reportedly did not communicate. Recommendations for implementation in the AIA proposal were minimal and the plan primarily reflected an architectural area with limited commercial orientation. The Port District maintained a strict economic orientation. The plan also coincided with a time of economic recession in San Diego.

The Port District later asked for another study of the south portion of the "Embarcadero" The AIA again responded, modifying some of the existing plans. The port district utilized

FIGURE 63.

San Diego Harbor provides tourists with a variety of attractions.



the plans to market bonds, and limited development was accomplished using much of newly-created observation pier for parking.

Recent environmental constraints have created an aura of pessimism towards getting much new development approved.

## SAN JOSE

In the mid 1960's, the City Planning Department and the Parks Department advocated renewed orientation to the urban segment of the Guadalupe River. Funds were lent to a private consultant for the development of a broad conceptual plan for a Park along the Guadalupe. A plan was requested that would stir the imagination of the city.

The plan was released in 1968 and contained a fairly well-defined implementation procedure. Action was taken over the next two years to begin the implementation process including the solicitation of support from influential citizens.

In 1969, attempts were made to rezone a portion of the project area to prevent the intrusion of non-conforming park uses. Public relations work did not precede this rezoning attempt, and this possibly was one of the factors contributing to stalling it in 1970. Other factors included the city administration's conservatism and a lack of a detailed financial feasibility study.

When the study was completed, the city went back to the planner for further project definition. The city administration was still not convinced of the financial feasibility of the project.

Rather than abandon the project, the planning department asked Model Cities to define some type of a project in this area. Incorporation of the riverfront provided an opportunity to enhance the project and appeal to the Model Cities staff.

A Plaza Steering Committee was formed within the Model Cities' structure and an influential Chicano was named chairman of the committee. He had not been named in previous activities surrounding the Guadalupe River but emerged as a strong supporter and representative of the affected neighborhood. The committee toured waterfront development in other areas and came back with a well formulated conceptual design in mind. Model Cities started looking at a market type of development emphasizing a Spanish-American theme.

Conflict developed between the planning department and Model Cities. The conflict largely arose from the city staff's belief that it had not had ample input into the concept development. The city manager's office believed that if city money and labor were to be spent, the city should have a significant role in concept development. The Model City's concept would reduce the amount of



FIGURE 64.

San Jose is implementing a plan to develop its urban water resources for tourism and recreation.



FIGURE 65.

Commercial establishments in Seattle could be enhanced by the development of a water-oriented park/business complex.



commercial land, cause an expensive realignment of a street and appeared to be infeasible from a flood-control standpoint. Progress was stalled for a while and changes in the Plaza concept were finally forced eliminating most of the problem areas identified by the city.

In 1972, the design was approved for a \$14.8 million plaza and intensive efforts got underway for funding the project. Initially, money was authorized for a title search and for land acquisition. Revenue-sharing funds were requested to set up a project office.

Recent activity was centered on final feasibility analysis and financing. The local redevelopment agency became the most likely source of large-scale financial support. California law, creating redevelopment agencies, permits the agencies to buy private property, develop that property using tax allocation bonds and resell back to private interests to pay off the bonds and create profits for the agency.

City administrators now predict that the Plaza Project may become part of a non-assisted urban renewal project using tax-allocation bonds and private investments. The profits from the larger redevelopment area, of which the Plaza de Guadalupe is a part, could even cover the plaza project if it unexpectedly lost money.

## SEATTLE

In the mid 1960's, Seattle was experiencing its period of greatest economic and population growth. With growth came the need for an increase in recreational facilities and many other city capital improvements. In a speech to a local organization, a prominent Seattle attorney expressed the metropolitan needs in a program he called "Forward Thrust." Community organization support came quickly but soon the "Forward Thrust" concept was considered a dead issue by the local press. A year later, the mayor revived the "Forward Thrust" idea and formed a committee of community influentials. The group quickly gathered time and financial commitments of over one thousand days and \$150 thousand to support the "Forward Thrust" concept.

In two years, a bond package was prepared including \$5 million for an urban-core waterfront park. The bonds passed by a margin of 2 to 1. The park/business concept included the improvement and redevelopment of a thirteen-pier area to include a small boat dock and public park.

After the bonds passed some resistance came from property owners. Working to immediately solve the communication problem, an urban design team was retained to present coordinated plans for the waterfront. Forty

percent of their fee was devoted to citizen participation work because little had been done in the past.

In spite of close cooperation with citizens groups, the consultants' plan attracted immediate opposition when presented. The plan was criticized as being seasonal and containing too much open space. Questions were raised concerning the legality of the development. Bond money had stipulated that the park concept must be public and only those commercial operations necessary to the public enjoyment of the park would be permitted. The consultants' plan recommended continuation of much commercial retailing business in the park area. The Seattle Parks and Recreation Department redefined its concept of park at this point allowing a park and business mix.

As action began to start the purchase of pier areas, experience quickly indicated the city was going to have to pay premium land prices. A reported reason was the acknowledged inconvenience and delays involved in dealing with the city.

A new architect expanded on several of the previous planner's concepts but discarded some of the problem areas. These plans proved to be more compatible with local interests.

As implementation activity was beginning in the early 1970's, Seattle was plunged into a severe economic depression. The city council

directed the city planners to proceed only with phases of projects that would not substantially add to city operating costs when completed. This helped to further define the park concept and made mandatory the inclusion of marine/leisure oriented commercial property that would generate revenues through long term leases. In 1972, funds were released for construction drawings of the park to be partially constructed on floating piers.

## WICHITA

Early in Wichita's development, business flanked the main streets on both sides of the Arkansas River. The continued growth of downtown forced greater awareness of the needs for some kind of flood control plan so the central business district would be a less high-risk area.

A plan for flood control was implemented in the early 1960's of a highwater diversion ditch passing around the west side of the city. This solved flood control problems but still left unanswered the problem of no water in the summer and fall--a critical factor if waterfront development was to occur.

In 1961, a Center City Study was completed and expressed the need for new community facilities. Urban renewal became a reality after this study was completed and focused on a blighted area adjacent to the river.



FIGURE 66.

Wichita has successfully linked the Arkansas River with nearby parks and business enterprises.

Urban renewal proceeded with no real orientation to the river. However, pressure was building rapidly to develop a reservoir in the river channel to retain water year-round. City planners wanted the water linked to a proposed convention center. Adjacent hotels saw water development as a desirable amenity.

The concept of a dam below the convention center had been talked of for several years. City Council action would be required to make this type of a capital improvement. Obtaining council action was deemed remote and support from the city manager was lacking. But, an influential citizen had generated support for a candidate who viewed waterfront development favorably. He was elected. Members of the power structure then lined up three of the council members prior to the vote on the dam issue and it passed. Just a few weeks before it had occupied a position near the bottom of the capital improvements list. The project was completed on time and the inflatable dam provided an attractive year-round water body for development.

Some community leaders credit this project for successfully orienting the community to the potentials of the waterfront. A system of bikeways, two fountain areas, the convention center and large hotels now grace the waterfront area. The new waterfront development has become the focal point for an annual aquatic festival.

In 1971, the idea to further develop the waterfront as part of the U. S. Bi-Centennial was advanced to the community. However, there was not ample time to coordinate the plan with other city plans and as a result the Bi-Centennial Park was not related to city transportation plans.

In 1973, development activity was at a lull. Urban renewal funds were drying up and

revenue-sharing programs predictably will find their way to other uses.

Wichita has demonstrated riverfront activity for over a decade of frequent change in elected city offices. A reported factor in the continuity of riverfront development programs was that the planning director wielded a great deal of power through his control over projects presented to the council. After council approval, a wide variety of community groups provided project support.

## LANSING

Generally, the urban-core waterfront provided by the Grand River through the center of Lansing has been aesthetically ignored. Over the years, warehouses, wholesale market places, parking garages, the railroad and a coal-fired power plant have been established along the riverfront in the central business district.

With the advent of urban renewal and the dreams of a Mayor's River Improvement Committee, city government became increasingly aware of a need to improve the visual quality of the downtown river.

In the early 1970's, the city hall reporter wrote a series of articles developing a great deal of interest in the potential of the Grand River. He drafted an ordinance dealing with waterfront development modeled after the San Antonio ordinance. This ordinance enabled the creation of a waterfront development board which was directed to prepare a master plan of the water corridors of the river including the central business district segment. The board was given the power to act on all building permits requested on property within fifty feet of the high water line of the city's rivers.

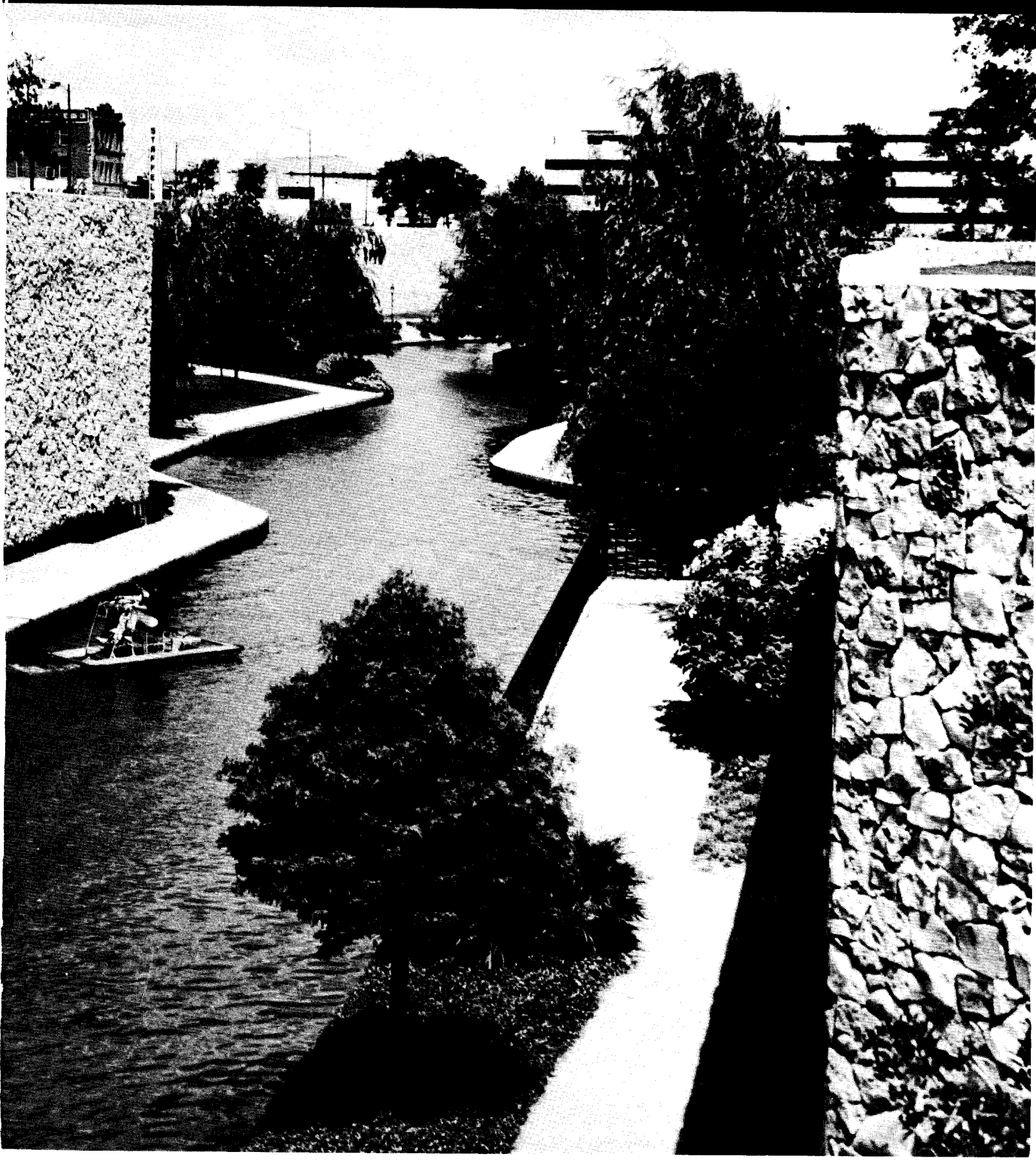
When the federal government announced plans for the Bi-Centennial celebration, the reporter who drafted the ordinance saw this as an opportunity. His idea was to combine urban renewal, waterfront development for park/business use, convention interests, the state capitol and the Bi-Centennial celebration. Thus, the idea for "Michigan Place" was born, combining the above functions.

The local chapter of American Institute of Architects did some preliminary conceptual planning for the development. Based on these plans support was gained for the Michigan Place concept and the city council established the American Revolution Bi-Centennial Committee. The reporter was hired as coordinator of the committee and the director of the Light and Water Board was loaned to the committee as general chairman. The loan of the director of the Board of Light and Water represented a commitment of a \$45,000 salaried position to this project.

Shortly afterwards, a proposal for a \$47 million project was unveiled with the federal Bi-Centennial program as the anticipated funding source. This was to be an extensive project.

By 1973, no federal funds had yet been released to the Bi-Centennial project for planning and development. The plans conceived in an era of growth began to pose a threat to decision-makers as government dollars became more scarce. Private funds were accumulated to finance some of the early planning but funding was becoming an increasingly hot issue. The mayor was elected on a promise to lower taxes and he did not want to jeopardize his position with support of a project that would ultimately raise the mill level. However, the council approved \$54,000 for salaries and office support to keep the project alive.

Attempts were made to involve more influential citizens. Two local bankers entered into competition to see who could do the most for the project. A local hotelman who was an experienced fund raiser got involved in supporting the project. Many persons involved believed that if the project fell behind the Bi-Centennial time-line much of the glamour of the project would be lost. Expressions of optimism still abound but project redefinition is becoming a reality.



## 9. CONCLUSIONS AND INFERENCES

In addition to the specific conclusive statements presented at the start of each chapter, the following discussion includes overall conclusions and inferences drawn by the researchers.

This nationwide study demonstrates that the San Antonio River Walk, while exemplary in many ways, is a unique case. The physical setting, the history of development, the sources of leadership, and the water stability over a long period of time are not likely to be duplicated elsewhere. It is doubtful if the River Walk could or should be replicated.

But, recent experience in many other cities with water resources downtown shows renewed interest in these resources and adaptation of River Walk principles, such as the following:

*A mix of both public and private (commercial) development is both possible and desirable.*

*A strong dedication to societal goals is as important as those that are economic.*

*A great amount of time and effort is required to redevelop urban water resources downtown.*

*A strong desire and commitment among many for high quality leisure settings in the central business district is essential.*

*With artistic and creative design, a variety of physical settings can be made functional, attractive and economically viable.*

*Some new development (stadium, parking) that could thrive equally well elsewhere are preempting a pleasurable park/business complex along downtown waters.*

*While fee-simple ownership of the entire complex may expedite development, the River Walk proves that a successful complex can result from the collaboration of many owners, agencies and organizations.*

*Leadership can come from not just one but from a variety of sources--therefore, cities should not look for a single route to success.*

*Flood control need not preclude attractive settings and pleasurable uses of urban waters. Several engineering alternatives may be required.*

*Conceptualizing, planning, building and operating a park/business complex is quite different and requires greater collaboration and cooperation than does a park or a business complex, done separately.*

*Few civic improvements, if done properly, can equal the power of well-designed park/business complex based upon water in the urban core.*

*The main reason few cities have reached the epitome of development shown in San Antonio is not lack of funding, lack of physical setting or lack of technical or professional input but lack of commitment, leadership and public support.*

## REFERENCES

- Ashby, Lynn, 1973. "Center Aim: City Built For People" *Houston Post*. September 19, 1973.
- Bujnowski, Bernard, 1972. "Community Aesthetics and the Urban Environment" *Parks and Recreation*. Volume 7, No. 6.
- Bumgardner, Walter H., 1974. Implementing Park and Recreation Master Plans. Unpublished Doctoral Dissertation. Texas A&M University. College Station. August, 1974.
- Cheek, Neil H. J., 1972. "Variations in Patterns of Leisure Behavior: An Analysis of Sociological Aggregates." In *Social Behavior, Natural Resources, and the Environment*, William R. Burch, Neil H. Cheek, and Lee Taylor (eds.). New York: Harper and Row.
- Craighead, Frank C. and John T. Craighead, 1962. River Systems: Recreational Classification, Inventory, and Evaluation. *Naturalist, Journal of the Natural History Society of Minnesota*. 18 (Summer).
- Dearinger, John A., 1968. *Aesthetic and Recreational Potential of Small Naturalistic Streams Near Urban Areas*. Lexington: University of Kentucky.
- French, Jere S., 1973. *Urban Green*. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- Garner, Joseph K. and C. S. Shih, 1973. *Identification of Water Resources Planning Problems in the Metropolitan Area of Greater San Antonio and Its Associated Counties*. TR-49. Texas Water Resources Institute. Texas A&M University.
- Gunn, Clare A., David J. Reed and Robert E. Couch, 1972. *Cultural Benefits From Metropolitan River Recreation—San Antonio Prototype*. TR-43. Texas Water Resources Institute. Texas A&M University.
- Gunn, Clare A., 1972. *Vacationscape*. Austin: University of Texas, Bureau of Business Research.
- Hanna, John W., 1974. Decision-Making Factors Affecting the Development of Urban-Core Waterfronts for Park/Business Use. Unpublished Doctoral Dissertation, Texas A&M University. College Station, Texas. May, 1974.

- Hobbies*. 1970. "Preservation and Volunteers" Volume 75. No. 4.
- Jacobs, Jane. 1961. *The Death and Life of Great American Cities*. New York: Random House.
- Kottis, George C. and Athena Kottis, 1972. "A Statistical Exploration of Some Factors Responsible for Decline of the Central Business District" *Land Economics*. Volume 48. No. 2.
- Kraus, Richard. 1971. "The Economics of Leisure Today" *Parks and Recreation*. Volume 6. No. 8.
- Leopold, Luna B., 1969. *Quantitative Comparison of Some Aesthetic Factors Among Rivers*. Washington, D. C.: U. S. Department of the Interior.
- Lepoma, Edward, 1974. Minibuses are joy to riders, a pain to some businessmen. *New Orleans States-Item*. January 7, 1974.
- Lundberg, Donald, 1972. *The Tourist Business*. Chicago: Institutions/Volume Feeding Management Magazine.
- Marmon, Mok, and Green, Inc., 1973. Models for Park/Business Complex Design. Houston: Marmon, Mok, and Green, Inc.
- Martin, Harold, 1969. "The Central City Crusade of John Portman." *Southern Living*. Volume 4. No. 7.
- Meyer, Harold D., Charles K. Brightbill and H. Douglas Sessoms, 1969. *Community Recreation*. Englewood Cliffs, New Jersey: Prentice Hall, Inc.
- Meyerson, Martin and Edward C. Banfield, 1966. *Boston: The Job Ahead*. Cambridge, Massachusetts: Harvard University Press.
- Mississippi/Minneapolis*, 1972. A report prepared by the Riverfront Planning Team of Minneapolis Planning and Development.
- Morisawa, Marie, Martin Murie, and Bonner McAllester, 1969. *Evaluation of Natural Rivers*. Yellow Spring, Ohio: Antioch College.
- National Tourism Resources Review Commission, 1973. *Destination USA*. Volume 2. Washington, D. C.: Superintendent of Documents.
- New Orleans *States-Item*, 1973. "CPC endorses riverfront swap." December 27, 1973.



- Parenzin, Arthur L., 1973. The Development of a Technique for Analyzing Urban River Settings to Determine Relative Potential for Park/Business Development. Unpublished Masters thesis. Texas A&M University. College Station, Texas. August, 1973.
- Reed, David J., 1972. Social and Environmental Characteristics of an Urban River Recreation System. Unpublished Doctoral Dissertation. Texas A&M University. College Station, Texas.
- Reid, Leslie M., 1964. "The Challenge of Future Urban Park Use" *Michigan Municipal Review*. Volume 37. No. 5.
- Schmedemann, Ivan W., Alvin B. Wooton, and William W. Saitta, 1972. *Rural Development and the Land-Use Paradox*. TA-10 128. Texas Agricultural Experiment Station. Texas A&M University.
- Shepard, Paul, 1967. *Man in the Landscape*. New York: Alfred A. Knopf.
- Spokane World Exposition, 1972. *Environmental Impact Statement: Expo '74*. Spokane: Spokane World Exposition.
- Texas Metro*, 1973. "Railroading in Bridgeport" Volume 9. No. 1.
- Texas Tourist Development Agency. No date. *Community Guide*. Austin: Texas Tourist Development Agency.
- Trock, Warren L. and Ronald D. Lacewell, 1973. *An Economic Evaluation of a Water-Based Urban Tourist Attraction in San Antonio, Texas*. TR-48. Texas Water Resources Institute. Texas A&M University.
- U. S. News and World Report*, 1973a. "Revival of Downtowns — Bringing the People Back." Volume 75. No. 20.
- U. S. News and World Report*, 1973b. "How 50 Firms are Reviving Detroit." Volume 75. No. 24.
- Whitman, Ira L., 1968. *Uses of Small Urban River Valleys*. Baltimore: U. S. Corps of Engineers.
- Yeates, Maurice and Barry J. Garner, 1971. *The North American City*. New York: Harper and Row.

#### PHOTO IDENTIFICATION:

COVER--Model of proposed riverfront park, Cincinnati, Ohio.

#### CHAPTER DIVIDERS--

- Chapter 1. San Antonio River Walk
- Chapter 2. Arkansas River, Wichita, Kansas. (Photo by David J. Reed)
- Chapter 3. San Antonio River Walk
- Chapter 4. Indianapolis Water Company Canal. (Photo by John W. Hanna)
- Chapter 5. Cincinnati Central Business District
- Chapter 6. Model of proposed riverfront development, Cincinnati.
- Chapter 7. Arkansas River, Wichita. (Photo by David J. Reed)
- Chapter 8. San Diego Harbor
- Chapter 9. San Antonio River Walk

#### PHOTO CREDIT:

City of Cincinnati, Ohio (Cover, Ch. 5, Ch. 6). Urban Renewal Agency of the Wichita, Kansas Metropolitan Area (Fig. 1, 3, & 4). Philadelphia City Planning Commission (Fig. 5 & 6). San Diego (California) Unified Port District (Ch. 8). Genessee County Parks and Recreation Commission, Flint, Michigan (Fig. 59). Riverfront Planning Team of Minneapolis Planning and Development, authors of Mississippi/Minneapolis (Fig. 46). Marmon, Mok, and Green, Inc. (Fig. 47-58). John W. Hanna (Fig. 16, 40, 43, 45, 61, 63-65). Fred M. Blumberg (Fig. 29-33, 60). All other photographs were taken during the "River Walk Study" by Gunn, Reed, and Couch.